Hints to the Purchasers of Trees, Seeds, &c.

NO pursuit or profession in life, however useful or honorable it may be, or however purifying and ennobling its tendencies, is wholly exempt from the evils of dishonesty. Not even the most sacred of all human vocations can escape this misfortune. Will any one wonder, then, that there should be dishonest nurserymen and seedsmen, and dishonest dealers in trees, plants, and flowers? Surely not. A great deal has been said about the dishonesty of nurserymen, seedsmen, and florists; but if a rigid comparison were made between them and *any* other class of dealers, we care not which, we have not the slightest hesitation in saying that the result would show that no other branches of trade are, on the whole, conducted with greater honesty and fairness. It may be said that we are an interested party in this case, and therefore not competent to judge; but we take it upon us to say that we are. We believe we are as well acquainted with those who are engaged in horticultural commerce in the United States, and have enjoyed as many and as favorable opportunities of studying their characters, as most other men; and, on the strength of this knowledge, we are willing to place them, for honesty of purpose, for energetic and industrious habits, and the general usefulness of their lives, against any other class. We have no desire to make invidious distinctions or comparisons, or to pit one class or profession against another, but we would remind those who are ever prating about the tricks of nurserymen and seedsmen, that there may be as many short-comings chargeable against their own calling. Who does not hear, every day of his life, about false weights and short measures? Look at the imposition practiced by the manufacturers of all sorts of cloths, by the substitution of one material for another, so that a person who is not thoroughly skilled in all their devices, is sure to be cheated. We have ourselves been sold cotton for woolen goods, by men who are so careful of their reputation that they would either knock down or institute a suit for slander against any one who would question their honesty. Look at the thousand deceptions in articles of food and drink—in tea, coffee, sugar, wines and liquors of all sorts—and in tobacco. Indeed, one can scarcely think of an article, whether of use or luxury, that can safely be bought from a stranger by an inexperienced person. The very *saints* of the world are engaged in this traffic in spurious commodities unblushingly. Yet these same hypocrites will cry out about the dishonesty of the poor nurseryman or seedsman who happens by mistake or carelessness to sell one variety for another.

Let us not be understood as justifying the frauds or errors of nurserymen or seedsmen; far be it from us to do any such thing. We shall rather expose and condemn them. But it should be remembered that it is an easy matter for them to make mistakes, and exceedingly difficult to avoid them. They are handling a great number of varieties of the same article, and their sales being huddled into a few weeks, renders

impossible that leisure and circumspection which can be given to ordinary trade. A boy entrusted to attach a label, may get it on the wrong tree or package, and the error may escape notice until too late. In packing, which must be entrusted to workmen, there are many chances for mistakes even where the most rigid surveillance is kept up. Indeed, throughout the whole routine of their business—in propagating, digging, labelling, and packing—there are an almost infinite number of small operations which require exactness, and all of which expose to error. Be charitable, then, and do not call every error a trick or a cheat. Every year our professional nurserymen and seedsmen are becoming more systematic and more careful, as well as more discriminating and skillful, and thus the chances for error are rapidly decreasing, except among new beginners, who have everything to learn.

There is growing up, however, in this country, a system of dealing for which respectable nurserymen are not responsible, and to which it is our present purpose to call attention. The extraordinary growth of horticultural commerce within the few past years, has attracted the attention of that large class of speculating individuals who are ever on the look-out for a profitable field of operations—men who are peddling gravestones to-day, lightning-rods to-morrow, patent medicines the next day, and so on from one thing to another. The country is filled with dealers in trees and plants. Beyond a doubt many of them are honest and honorable—men who may fairly be trusted; but it is equally true that very many of them lack honesty, and will not hesitate to misrepresent and deceive wherever they consider deception necessary to success. We have in our hands the most ample evidence of this. Letter upon letter has been for some time past addressed to us upon this subject from all parts of the country, begging us to expose the frauds, and propose some remedy. But what can we do? The world is full of credulous people, ever ready to be made victims to the crafty stories of unscrupulous rogues,—people who read but little, and whom our warnings will never reach, and who, even if they did, would give them no heed,—people whom even dear-bought experience would fail to teach wisdom. They are the penny-wise and pound-foolish, who will run a thousand risks of being cheated for a single chance of making a good bargain. The authorities of New York city caused flaming placards to be carried around the streets, in the most conspicuous manner, to caution country people against being decoyed into mock auction rooms, where they are certain to be fleeced by a set of stool pigeons; but while these placards are carried up and down all day long, every morning paper brings to light some mock auction frauds, and thousands are daily perpetrated that are never made public. All that can be urged against the folly and madness of swallowing patent medicines avails nothing; for we see the country full of traveling medicine chests, and vast fortunes realized from the business. All manner of frauds are perpetrated, day after day and year after year, upon a credulous public, and yet the last reaps as rich a harvest as the first. We have therefore but little hope that anything can be done to stay deceptive trading in trees, plants, or seeds. Our correspondent "M," of Maumee, Ohio, related in our last number some of the tricks of foreign adventurers in the West, and we have seen the very same things done in this enlightened horticultural city of ours a few years ago. Large quantities of the merest trash were sold at exorbitant prices to persons who were never known to patronize respectable nurserymen and florists at their own doors to the amount of a dollar. A short time ago a gentleman from one of the Eastern States called on us, and inquired

for a person who he said had sold large quantities of Apple trees in his neighborhood, representing himself to be the proprietor of one of the oldest and most extensive nurseries in Western New York, and representing also that his trees were propagated by some superior method which was known to him only, and which gave them a decided superiority over trees grown in the ordinary way. On inquiry, we found this man did not own a single foot of land, had never been a nurseryman, nor had he any interest whatever in any nursery establishment, but bought such trees as he could make the largest profit on. He was a crafty rogue, however,—pretended more than ordinary piety, and victimized the religious people of New England handsomely. A few weeks ago a nurseryman of Rochester received intelligence that he was represented in some parts of Ohio by a person who claimed to be his agent and *son*, while he not only did not know such a person, but had never seen him or heard of him before, and he was compelled to incur the trouble and expense of advertising him as an imposter. Is not this a high-handed piece of deception to be attempted in such a business, and among an intelligent people? The man who will do such a thing is not a particle better than he who counterfeits a bank bill or a silver dollar, or who will forge a signature to a bank check. We have it from perfectly reliable authority, that a company of tree dealers, hailing from Ohio, purchased at a small nursery in Western New York a quantity of seedling unworked fruit trees, (Peaches and Cherries,) knowing them to be such —for the nurseryman we believe to be a perfectly honest man,—and they took them up, tied them in parcels, and attached labels to them bearing the names of all the best fruits in the catalogues. We were informed that these spurious articles were to be carried to Tennessee. Here is a piece of villainy for you! Such men richly deserve the penitentiary, and we can not understand how any honest man could conscientiously refrain from exposing them, and thus aid in bringing them to punishment.

In every part of the country people have been outrageously deceived by itinerant *grafters*. They traverse the country, and take orders to do grafting at so much apiece for all that live. When the season of grafting comes, a few workmen come along with a wagon-load of scions, containing every variety that could possibly be called for, all procured from the most responsible source; and as a proof of this, a catalogue of some well-known nurseryman is exhibited, and, it may be, a forged bill or invoice, while the scions were most likely cut from some of the orchards they had been grafting in. Thousands of orchards have been ruined in this way. We have now one in our possession which the previous owner had had grafted by one of these rogues, and instead of having some three or four select sorts, as he ordered, he had a collection of vile rubbish, mostly natural fruit, and in some cases three or four different sorts on a tree.

We might go on and cite cases of this sort which have come to our knowledge enough to fill a dozen pages of this journal, but it would be a waste of time and paper. In this part of the country people are more cautious and careful than formerly, and few men now are willing so trust unknown irresponsible persons with the important duty of grafting their fruit trees. Not so, however, in some parts of the West and South, where we are informed the speculation is in full blast. We hope this word of warning may find its way there, and prevent at least a few from allowing themselves to be victimized. It is but just to say, in this connection, that there are honest men engaged in this business of grafting—men in all respects worthy of confidence,—and

the service they render to fruit-culture is very great. What we have said will be no detriment to them, for they have characters to sustain them and inspire confidence.

Quite as bad as any of the frauds we have mentioned, is that of palming off indifferent and worthless varieties of fruits and flowers, as something new, extraordinary, and valuable, at the most exhorbitant prices. Crafty fellows perambulate the country with exaggerated colored drawings and bombastic descriptions, and thus deceive thousands of people. The common Alpine Strawberry has been peddled for years with the word *Mammoth* (very captivating) prefixed. The *Charter Oak* Grape—a great fox Grape, utterly worthless, except, as Mr. LONGWORTH says, that it might serve for cannon balls if lead were scarce—for two or three years has had a fine run in almost every part of the country, at three to five dollars per plant. The "*Excelsior*," and several others puffed and paraded about, are no better.

Strange to say, very many of those who purchase such articles, could not be persuaded to purchase those of real merit. Nothing else will serve them but to be *humbugged*, to use a vulgar but expressive term.

Newspapers lend themselves, unwittingly, as a general thing, to these frauds, and do a great deal of harm. The family newspaper is looked up to as authority; and when these speculators get their glowing descriptions published, their work of deception is half accomplished.

The only thing that can remedy this evil, is the dissemination of intelligence; and we call upon the friends of horticulture and of honest and honorable dealing, in all parts of the country, to lend their aid in exposing and arresting this system of fraud. It is a disgrace to the trade and to the morals of the country. A most unpleasant duty it is for us to give such a subject this importance; but we can not shrink from it. Ours is not the only country where such dishonesty is practised; the same game is played on a smaller or larger scale all over Europe, as the pages of their journals prove.

If there be anything about which people should exercise extraordinary care and caution in purchasing, it is that of trees, seeds, and plants. What a loss of time and money, and what a disappointment and mortification, to be deceived in these matters! It is not difficult to avoid impostors, if we but determine on so doing. There are honest tradesmen enough everywhere, from whom a supply can be obtained,—men who have a character at stake, and who feel that their success depends upon their good reputation. These harpies who go about the country deceiving, are here to-day and there to-morrow; they seek patronage but *once*.

Our advice to all parties who desire to purchase trees, seeds, plants, or flowers—anything pertaining to horticulture in which frauds are or can be committed—is to place their orders in the hands of men whom they *know* to be trustworthy. Reliable tradesmen are well known, and those of them who have traveling agents, provide them, or should provide them, with the requisite testimonials with which they may give the fullest satisfaction to those whose patronage they solicit. On this head a rigid inquiry should be made. No statement should be listened to that appears anywise suspicious.

THE DUANE'S PURPLE PLUM.

SYNONYMS: *Duane's Purple French.*—Fruit and Fruit Trees of America, Pom. Manual, and Kenrick's American Orchardist. *Red Magnum Bonum*, of some collections.

SEVERAL fine fruits have been received in this country from abroad without names, and notwithstanding the numerous and extensive importations of varieties for many years back, no one has been able to identify them. Such are the *Golden Beurré of Bilboa* Pear, an excellent and popular sort now considerably disseminated; the *Bradshaw* or *Large Black Imperial* Plum; the *Great Bigarreau* Cherry. The *Duane's Purple* Plum and several others are in the same category. It is quite possible, however, that all these fruits will yet be identified, as we are every year coming into closer communication with European pomologists, and becoming more familiar with their collections. Practically it is perhaps of no very great importance, yet it would be advantageous to pomological science, and more satisfactory to the intelligent cultivator, were we able to trace the history and origin of these fruits.

The *Duane's Purple** is a large and beautiful fruit, of good but not first rate quality. The tree is a free and moderately stout grower, with very distinctly marked gray woolly shoots, and bears the most abundant crops. It is cultivated, or was cultivated a few years ago, at Albany as the *Red Magnum Bonum*, a very different fruit in every respect. Mr. ELLIOT gives the *English Pond's Seedling* as a synonym, but for what reason we do not know. We are not aware that these two varieties have ever been confounded. The *English "Pond's Seedling"* or *Fort Hill* Plum is a very large, oval, showy, reddish variety, like the *Red Magnum Bonum*, but has no resemblance to *Duane's Purple*. This latter variety is now classed with *Smith's Orleans*, *Imperial Gage*, *Washington*, *Coe's Golden Drop*, *Lombard*, and other free-growing, productive, valuable varieties for general cultivation, though not ranking in quality with a *Green Gage* or a *Jefferson*. We copy from the *Fruits and Fruit Trees of America* Mr. DOWNING'S excellent description:

"DUANE'S PURPLE FRENCH.—A superb-looking purple fruit of the largest size, and of very fair quality,—occasionally, in warm dry seasons, first rate. It was imported from France by JAS. DUANE, Esq., of Duanesburgh, N. Y., but without a name, and is now generally known under the present title. We have seen this fruit, about Albany, confounded with the *Purple Magnum Bonum*. The tree is easily known by the *gray* appearance of the wood, and large leaves, which are unusually *woolly* on the under surface. It is a highly attractive dessert fruit, ripening rather before the Plum season, and bearing well.

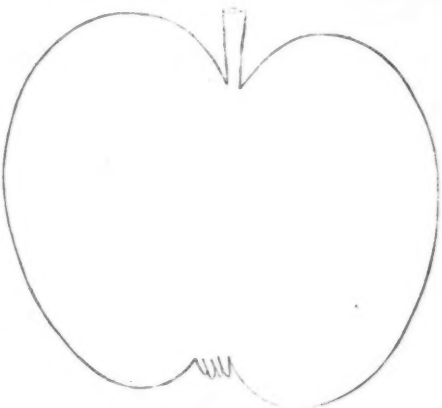
"Branches—very downy. Fruit—very large, oval or oblong, considerably swollen on one side of the suture. Skin—reddish purple in the sun, but a very pale red in the shade, sparingly dotted with yellow specks, and covered with lilac bloom. Stalk—three-fourths of an inch long, slender, set in a narrow cavity. Flesh—amber-colored, juicy, sprightly, moderately sweet, adheres partially to the stone. Ripens with the *Washington*, (or a little before,) about the 10th of August."

* See frontispiece.

THE JEFFERSON COUNTY APPLE.

About a year ago our attention was called to this Apple, by our friend S. Worden, of Minetto, Oswego county, N. Y., and last autumn he sent us a box of specimens, from which we made the following description: Fruit—medium size, round, regular. Stalk—short, set in a deep cavity. Calyx—small, closed, in a deep, smooth basin. Skin—smooth, greenish-yellow, marbled with red and russet on the sunny side, running into broken stripes toward the shaded side. Flesh—crisp, juicy, tender, mild subacid, rich and excellent. Season—late autumn and early winter.

We add the following account of this variety, by Hon. Chas. E. Clark, of Jefferson county, and commend this variety to the attention of orchardists in Northern New York:



THE JEFFERSON COUNTY APPLE.

"The seed of this Apple was brought from Connecticut, by the second wife of the late Wm. Huntington, Esq. The nursery was planted on his farm, and the young tree was removed from that nursery in or about the year 1807, to the orchard of the late James Wilson, in Rutland Hollow, where the original tree now stands. The tree is therefore about forty-five years old. It is of thrifty and vigorous growth, an early and great bearer, never failing to be loaded with fruit every year. Indeed, the symmetry and health of most of the trees propagated from this, is destroyed by the heavy and crushing loads of fruit they bear. The Apple ripens in October, and keeps well till the first of December, and during two months it is the very best Apple, exceeding in the estimation of the writer, the *Porter*, *Spy*, *Swaar*, *Baldwin*, *Greening*, or *Spitzenburgh*. It averages three and a quarter inches in diameter from side to side, and two inches from stem to calyx. It is quite fair in its surface, and is exceedingly beautiful. At the blossom and stem ends the cavities are deep and well formed. At the blossom end the color is russet, on a yellow ground, for a quarter of the distance to the stem on one side and three quarters of the distance on the other side; the remainder of the Apple is a rich scarlet, sometimes in stripes and sometimes in detached fragments or spots, showing a beautiful yellow streak between the spots, appearing as though the Apple was originally russet and that it had been painted over with scarlet, and that the growth of the Apple had broken this scarlet coloring and showed the original russet, and very frequently near the stem there is a spot of clear yellow of the size of a sixpence.

"In shape and color it is most beautiful, and in flavor it is unsurpassed. The skin is thin and tender; the flesh is exceedingly juicy, a gentle subacid taste, brisk and spicy, and the distinct flavor of the Quince. It is first rate for the table, for cooking, and for cider.

"Jefferson county has the honor of giving birth to this tree: hence its name. It is found in many of the orchards in Rutland and Champion. It sells readily for half a dollar per bushel, while other good common sorts sell for eighteen cents."

THE MIDDLE APPLE.

SYNONYM: *Mittel Apple.*

SOME time ago we received specimens of this Apple from A. W. HOVEY, Esq., of Pontiac, Mich., and since that time we have procured some particulars concerning it, through the kindness of several gentlemen who reside near the place of its origin, in the Mohawk valley. Mr. CHAS. SPINNER, of Herkimer, informs us that it is esteemed one of the most delicious Apples grown in that county,—that it keeps till January, and sells at $2 to $2.50 per barrel, while *Greenings*, *Swaars*, *Spitzenburghs*, &c., sell at $1.38 to $1.50. Mr. J. D. INGERSOLL, of Ilion, states that its origin is unknown,—that the old tree was full grown when the earliest settlers migrated to the German flats. He also describes it as a slow grower and shy bearer, often imperfect in form and flavor, but sometimes of the highest excellence; would not advise any one to plant it with a view to profit. Mr. I. incloses the following letter, which, as it enters into many important details, we give entire:

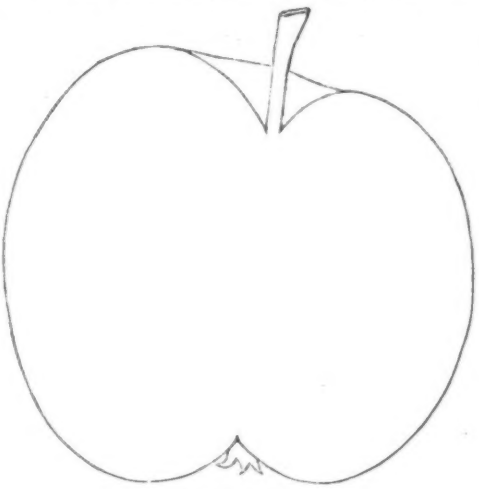
"Yours of the 13th inst. was received on the 16th, and would have been answered at once, had I not thought it advisable to make further inquiry in relation to the question that you propounded me. The fact of the *Mittel* Apple tree which stood on the division line between the farms of Capt. CHRISTOPHER BELLINGER and Mr. JOHN DOXTATER, in the town of Herkimer, and directly opposite this place, being a *seedling*, I never heard doubted until I received your letter. I have since inquired of persons who knew the tree as a *very old one more than fifty years ago*, and they say there can be no doubt of it. It is true that the question whether it grew from the seed on the spot where it flourished so long, or whether it was a seedling transplanted there, has been mooted. Some have supposed that it was planted by the Indians; others, that it was brought from Schoharie county by some of the earliest German settlers of the Mohawk valley. I can recollect the tree well for at least forty-five years. It was quite old at that time, with one of its main branches broken off, and partially hollow. It grew on a rich terrace, the first above the Mohawk flat, the soil black sandy loam. The side of Mr. BELLINGER was for many years under high cultivation as a Watermelon and Muskmelon patch, which kept the old tree in good condition longer than it could have been under ordinary circumstances. I can myself recollect trees, and even orchards, that were conceded to have been planted by the natives before the 'Know Nothings' made an eruption into this beautiful valley, and they looked no older than the tree under consideration. Some years since, I visited the spot for the purpose of getting shoots from the roots, under the impression that few if any of the grafts were equal to the original; but I found that every vestige of the tree was gone. I now regret it, as it would have forever settled the question whether it was a seedling. The fact whether it grew from a seed on the spot, or whether it was transplanted as a seedling from some other place, is of as little consequence in the case of an Apple tree as of a man; and I have little fear that the Native or Know Nothing party will vote it out of Herkimer county, even if proof could be found that it was brought from abroad by a Roman Catholic.

"A word as to the name of this, the best of Apples. It is admitted that *Middle* is a translation into English of the German word *Mittel;* but as well might you call the Dutch *Straat*, *Street*, or the renowned *Swaar*, *Heavy*, as to call the *Mittel*, *Middle.*

"Now one word as to the fruit. As to quality, I believe it is universally conceded, by those who know it, to be *the very best* in its season, which usually is about the holidays. It is, however, not a profitable market fruit, as it is, unless under favorable circumstances,

such as a rich soil, high cultivation, and I think a warm dry summer, *a shy bearer;* but then, the quality makes up for any deficiency in quantity. This is probably the reason why this *queen of Apples* has not been more widely diffused. Ever since my recollection, it has brought a larger price at home than the best of other Apples in the New York market. The *Newtown Pippin*, which comes the nearest to it in point of excellence, has the advantage of being more productive, and of being better at a late period, say in March or April. The tree in this climate grows thriftily, and I understand it is remarkable for rapid growth and for fair and large fruit in Illinois and other Western States. Its shoots, and in fact its branches, are remarkably slender, giving the tree, when in bearing, a pendent or drooping appearance.

"Perhaps all fruits are modified by being propagated by grafting, but this is peculiarly the case with the *Mittel* Apple. I know a case where the fruit was entirely worthless on account of being *water-cored;* but this is rare, and in forty-nine cases in fifty a good fruit might be expected. There are, however, now two distinct varieties, the *yellow* and the *green*, the latter being preferred by most persons. L. E. SPINNER.—*Mohawk, N. Y.*"



THE MIDDLE APPLE.

What Mr. SPINNER says about "two distinct varieties" must be the result of certain modifications produced by soil, culture, stock, &c. Two distinct varieties would imply *two* seedlings.

Our description, made from the Michigan specimens, is as follows: Fruit—medium size, roundish. Stalk—three-quarters to an inch long, rather deeply inserted. Calyx—open, shallow. Skin—smooth greenish, some specimens yellow, with light traces of russet. Flesh—fine-grained, tender, juicy, mild subacid, nearly sweet, flavor agreeable. Season—Dec. to March.

THE NEW ROCHELLE BLACKBERRY.

BY U., ADRIAN, MICH.

HAVING recently visited New Rochelle, Westchester county, N. Y., and there learned many particulars respecting the discovery of the *New Rochelle* or (as it is more commonly called) *Lawton* Blackberry, I take the liberty to make this communicatien, in the hope that *eventually*, though *tardily*, proper credit may be given to the person to whom the public are *really* indebted for the discovery and preservation of this remarkable fruit.

In the year 1834, Mr. LEWIS A. SEACOR, then and now residing in the village of New Rochelle, found, on a farm now owned by F. PRINCE, Esq., a clump of Blackberry bushes bearing fruit of uncommon size, which differed much in shape and appearance from any he had ever seen. Four or five years afterward, having purchased a lot for a residence, he recollected these Blackberries, went to the field, dug up and transplanted several of them into his garden. When in due time these bushes bore fruit, Mr. S. says his neighbors were greatly surprised, and, attributing the difference in size and shape from the common fruit to *cultivation alone*, several of them supplied themselves with the common wild plants from the fields, expecting to gather fruit equally large as Mr. SEACOR's. In this expectation they were disappointed, and after a few years' trial the plants which had been so carefully cultivated were dug up and thrown away as worthless. Mr. S. now supplied several of his neighbors with plants from his garden, and the fruit became generally known in his vicinity.

Seven or eight years ago, Mr. LAWTON (after whom the fruit has been named) saw some of these Blackberries in the garden of a neighbor, inquired where the roots were obtained, &c. He bought plants of Mr. SEACOR, was told by him where they were found, the circumstances of their discovery, &c. In 1853, at a meeting of the Farmers' Club, in the city of New York, Mr. LAWTON presented a quantity of these Blackberries, which were greatly admired. He also at that time read a paper before the Club, in which he says, (I quote from a report of his remarks published in the newspapers,) "it [this fruit] has been cultivated in small quantities for several years in New Rochelle, where I now reside. I have not been able to ascertain who first discovered the plant and brought it into garden culture, but am informed it was found on the roadside, and thence introduced into the neighboring gardens." The Farmers' Club passed a vote of thanks to Mr. LAWTON, and named the fruit the "*Lawton* Blackberry." The Pomological Convention, which assembled in Boston last year, also use the same name in their list of fruits; so that it is likely to be perpetuated, unless the facts in the case are known. Ask any person in New Rochelle, acquainted with the fruit, as to its origin, and you will be told Mr. SEACOR was the discoverer.

It may be well to mention that Mr. PRINCE, the present owner of the farm where the fruit was found, in making some improvements on his land, destroyed the original bushes, without knowing anything of the existence of such a fruit on his premises; so that but for Mr. SEACOR's efforts, the fruit would have become extinct.

Now, if his agency in preserving this valuable fruit has not been of a character sufficiently meritorious to make it proper that it should bear *his* name, there is certainly no reason why it should bear Mr. LAWTON's. But it may be asked, "What's in a name?" to which I answer, in *this* case, much. By getting his name affixed to the fruit, Mr. LAWTON does not merely (to use a common phrase) "steal another man's thunder," but he is placed in a situation to make a great deal of money out of it. Persons, unacquainted with the above facts, wishing to obtain this Blackberry, would naturally say, "Who so likely to furnish the *genuine Lawton* Blackberry, as Mr. LAWTON himself?" And I find that for the year past he has been selling the plants at ten dollars the dozen (double the price charged by Mr. SEACOR); and although in the *end* he may not win golden *opinions*, he is likely to win plenty of golden *dollars*, which perhaps he may value more.

I would suggest that the New York or Brooklyn Horticultural Society investigate this matter, and let justice be done; the parties live in their immediate vicinity.

There have been many conjectures as to the origin of this fruit. It is known that a relative of a former proprietor of the farm brought shrubbery with him from England, and some suppose this Blackberry was then introduced; others think the Huguenots, who originally settled New Rochelle, brought it with them from France; but the prevalent belief appears to be that it is an accidental seedling.

For the facts embodied in this letter, I am indebted to a communication from Frederic Prince, Esq., (the present owner of the farm where the fruit was found,) published in the *Westchester News*, and to the verbal statements of Mr. Seacor and some of his neighbors; and I have every reason to believe all these statements to be *substantially* correct.

NOTES ON PEARS IN 1854.

BY JOHN B. EATON, BUFFALO, N. Y.

In fulfillment of my promise, I send you some brief notes of my experience with Pears. Most of the varieties were fruited upon young trees, many of which were bearing their first crop. This should not of course be taken as an infallible test of their future excellence or inferiority, although the land upon which the greater part were grown was deeply cultivated, and well supplied with manure, with which the trees were also mulched. As a consequence of these precautions, the extraordinarily dry season, which so greatly decreased the produce (both in size and quality) of many plantations, did not as a general thing reduce the size of our specimens, and we grew *Duchesse d'Angoulême*, *Beurré Diel*, *Louise Bonne de Jersey*, and many others, to a size which I have rarely, if ever, seen exceeded.

The blight has destroyed a few trees the past season, but has not prevailed as an epidemic, and is, I think, gradually leaving us. Timely amputation of the affected part has saved a portion of those trees which were first attacked in the branches; but the remedy, to answer any good purpose, must be applied without hesitation, and *severely*—cutting far below any appearance of disease, otherwise the diseased sap will have poisoned the lower part of the branch before the application of the knife.

Nearly all of the varieties were fruited on the Quince stock. A few, which will be specified, were from standards.

Ananas d'Eté is a handsome Pear, of a somewhat elongated obovate form, of good size, but wanting in flavor. Our specimens may have been picked too early, but their quality sadly disappointed me. Ripe from the first to the middle of September.

Beurré Goubault—medium in size, roundish, not very buttery, but "very good." An apparently profuse bearer, but wanting color. Middle of September.

Bloodgood, although not much spoken of among so many new varieties, is one of my especial favorites among the early Pears. Its peculiar aromatic flavor has few counterparts, but I find it a little uncertain in size, and does not grow very well on Quince, even when double worked. "Very good." September.

Beurré d'Amalis is a large, showy fruit, although not well colored, and a great

bearer on the Quince. Still, I would not cultivate it unless for market, and consider it no better than "good." September.

Bartlett needs no description. Our specimens were very fine—rather better from dwarfs than standards; but the quality of the fruit is so far below its appearance, that I am always a little disappointed, in spite of myself, on eating one. "Good." First to middle of September.

Beurré de Paimpal is a pale green, ungainly-looking fruit, not unlike the *Verte Longue*, with which it may be identical. It is too, indifferent, however, to cause much anxiety as to what kind it is. September.

Belle Lucrative is, in my opinion, almost perfection; and if required to choose between it and the *Seckel*, I should without hesitation make choice of the former. Its fine size, (we had specimens nearly three inches in diameter,) productiveness, exquisite flavor, and the beauty of the tree, render it one of the most desirable varieties, even in the smallest collection. "Best." September.

Belle Epine Dumas, a medium-sized, pyriform, greenish fruit, we have fruited under the names of *Epine Dumas* and *Duke of Bordeaux*. It has no very striking points of excellence, although it has had a good reputation. It has a singular habit of sometimes bearing a cluster of imperfect, deformed fruit, on the ends of the current year's growth, which of course never mature. This I have also *occasionally* noticed in the *Duchesse d'Angoulême*, and some others, but it seems to be a fixed habit with this variety. "Good."

Beurré Diel is a beautifully-formed fruit of the largest size. I have eaten specimens which were "very good" *indeed*, but this season it was not so fine as usual, whether from the large size of the specimens, or some other cause, I am unable to say. I consider it, however, "very good." October.

Brown Beurré, although when in perfection it has scarcely a superior, is very uncertain. I think that it requires higher cultivation than any other variety that I know, and also pretty severe pruning and thinning. The best specimens that I have ever eaten were from a tree which had borne such miserable fruit the preceding year, that it was headed down severely, and grafted. The few branches which escaped the knife bore magnificent specimens—large, fair, and almost rivaling the *Seckel* in high flavor, though of an entirely different stamp of course. The tree was a standard, of moderate size, standing on gravelly soil. This season the fruit was poor, as also that from dwarfs. Generally "very good." October.

Bezi de Montigny proved, this season, "very good," contrary to its usual habit. Still, I do not consider it worthy of cultivation. October.

Beurré Langelier ripened in November, as did all our winter Pears, in consequence of being kept too warm, and was of no value. I have eaten it before, and considered it "very good." Our trees on the Pear stock fruited very early and abundantly, but the specimens were small.

Beurré d'Aremberg—"very good." Its rich vinous juice can scarcely be excelled.

Beurré Gris d'Hiver Nouveau has more the appearance of a *Gray Doyenné* than a *Brown Beurré*, as its name indicates. It promises to be a fine Pear, but did not ripen well this season.

Beurré de Rance was worthless, notwithstanding its high reputation.

Colmar d'Aremberg is a huge humbug, and utterly worthless, in my estimation, for any purpose, but to show. It should be put on the rejected list. October.

Chamoisine—a most beautiful fruit, somewhat resembling in form the *Easter Beurré*. In color a soft waxy yellow, with a brilliant red cheek, but the most miserable Pear that I think I ever tasted. It may be better another year, but I doubt it very much. October.

Chaumontel is exceedingly unsatisfactory. It bears profusely, and sometimes is very fine, but almost impossible to ripen. Although a winter Pear, the best that I ever ate were blown off the tree in October, and were really "very good;" but at its proper season I can do nothing with it. Mr. Robert Manning once stated to me that the results of his experience with it were nearly similar.

Columbia, although ripening in November, was "very good"—much better than I expected—and beautiful in form and color, the latter a soft yellow. It has so far borne very early and profusely, especially on grafts.

Catillac I consider worthless, for I do not believe in cultivating Pears, or Apples, for cooking alone. Many Pears are good for culinary purposes, besides being *edible*, at least, which the *Catillac*, *Uvedale's St. Germain*, and some others, are not. *Beurré de Louvain* I have suspected of being the *Catillac*, but when genuine it is distinct. It may, I think, be placed in the same category, nevertheless.

Doyenné d'Eté did not equal my expectations. It was too small, and scarcely "very good." Still, it was the first crop, and the second will probably be better. August.

Dearborn's Seedling is another "little bit" of a Pear, which, although very good so far as it goes, deserves to be superceded by a larger one. Until we find such a variety, we must, I suppose, cultivate it for its earliness. August.

Dumortier—very small, and good for nothing. October.

Duchesse d'Angoulême is a magnificent Pear, and one that has been much abused. I know no Pear of its size, or approaching it, which is equal to it in quality, except sometimes the *Beurré Diel*. When a tree is overloaded, as will frequently happen, unless carefully thinned, the fruit is wanting both in size and quality; but it is usually "very good" with us, and I have sometimes eaten it nearly equal to the *White Doyenné*, which, in Western New York, is no faint praise for any Pear. Although it is generally condemned as a standard, we grow beautiful specimens on grafts in the tops of large trees, which are not inferior in flavor to those grown on dwarfs, and are frequently more highly colored. October.

Easter Beurré, although ripening out of season, was "very good." I am satisfied that with care in picking and ripening, it may be had in eating from the first week in November to the last week in April, or perhaps longer. I consider it the *best winter Pear*.

French Jargonelle—worthless, and very properly rejected by the American Pomological Society.

Gansel's Bergamot, when it fruits, which is quite rarely, is a finely flavored Pear, of a peculiar spicy taste, which I am partial to; but it is gritty at the core, and, although large, never bears enough of a crop to "go around." "Very good." October.

Gloire de Cambroune, (which was purchased as *Urbaniste*,) is a long-pyriform, good-looking Pear, of a yellowish-green color, and pleasant flavor. "Good." October.

Gray Doyenné, which should be one of the best of Pears, was this year scarcely "very good" in quality, but of fine size. October.

Glout Morceau, ripening out of season, was no more than "good."

Henry the Fourth, or *Ananas*, or *Beurré Ananas*, (for we have it under all these names,) although usually small, produced some fine specimens, which were nearly equal in flavor to the *Seckel*. Most generally it is a dull, disagreeable-looking fruit, but bears enormously, and is almost always "very good." September.

Inconnue Van Mons is a great bearer also, but has little else to recommend it, unless it should keep well, which ours did not.

Jalousie de Fontenay Vendée I am much pleased with. It is of good size, handsome form, somewhat similar to *Napoleon*, and possesses a peculiar and very pleasant flavor. "Very good." September.

Jaminette is an unprepossessing, dull green, rough-looking Pear, but keeps well, and has rather a pleasant flavor. I have eaten it after it had lain on the ground, under the tree, all winter, when it had lost very little of its flavor. "Good."

Louise Bonne de Jersey is the Pear, *par excellence*, for growing as a dwarf. It will *nearly* take care of itself, and produce large crops of large, handsome, ruddy-cheeked Pears, which in their brisk and sprightly flavor are "hard to beat." "Very good." September.

Le Curé, or *Vicar of Winkfield*, I do not like. I have perhaps been unfortunate, but never yet tasted one that I considered "good," yet I have eaten of many produced on our own trees, and also, by the kindness of various friends, of beautiful specimens grown in the vicinity, both on standards and dwarfs. All were nearly similar—juicy, but coarse-grained, acid, and insipid. The pomologists of Boston say that it is their best winter Pear, but it is certainly not *ours*.

Lawrence is capital—large, handsome in form and color, and "very good," at least, in quality. In appearance, it is not unlike a well-grown *White Doyenné*, and promises to rank but little below that fine Pear. I have not kept it beyond December, but then our specimens were *not numerous*, and were *appreciated*.

Lewis is another fine Pear, not so large as the *Lawrence*, but of a somewhat similar character, and promises to be an abundant bearer. "Very good." December.

Muscat Robert is the earliest Pear that we grow, and, if eaten before being too ripe, is "good." It is, however, very small, and not enough earlier than *Doyenné d'Eté* to entitle it to much consideration. It is, unlike most Pears, better when ripened on the tree. First week in August.

Napoleon I have but little respect for as a Pear. It is handsome, and bears well, but, though very juicy, it is not high-flavored, and no more than "good." October.

Oswego Beurré I have not fairly tested, our specimens having been mostly blown from the tree and prematurely ripened. They were no more than "good," but promised better things under more favorable circumstances.

Passe Colmar, although ripening prematurely, was "good," and finely colored.

Rousselet Hatif, or *Early Catherine*, as it is universally called in this vicinity, is the most extensively cultivated early Pear to be found in the older orchards, and was for some years almost the only one, which had much pretension to flavor, ripening before the *Bartlett*. It is an exceedingly juicy, pleasant Pear, but soon rots at the core, and

only bears well occasionally, when the branches are literally covered with the fruit. "Good." August.

Summer Franc Real is a great bearer, and a "good" fruit, of not much character. Its juice, though abundant, wants flavor. September.

Stevens' Genesee is much of the *White Doyenné* stamp, without its fineness of texture. It is, however, much more roundish than the *Doyenné* usually is, (though I have seen specimens of *Doyenné* pronounced *Stevens' Genesee* by those who *know both* fruits *well*, and are *judges*,) and is not so highly flavored. "Very good." September.

Surpasse Virgalieu is, without exception, the finest-grained Pear that I ever tasted. It is almost as melting as a Strawberry, and delicious in flavor. We have received it from France under the name of *Beurré d'Engheim*. *Colmar Van Mons* is also identical. "Best." September.

Seckel I have never seen so large in this part of the country, as the past season. We had many which were over two inches in diameter, and some nearly two and a quarter. "Best." September. Contrary to the experience of many cultivators, we find that it does well on Quince, and makes a very "stocky" tree, fruiting profusely from the surface of the ground.

St. Michael Archange, thus far, is a small, greenish Pear, merely "good." Sept.

Swan's Orange, or *Onondaga*, has disappointed me much. It is certainly a large, handsome Pear, bears well, grows well on the Quince, and forms a fine tree; but it is not what I have expected. Its flavor is a *flat acid*, too frequently. I have eaten it for three seasons, and can not rank it higher than "good." Our specimens were splendid in appearance, and apparently perfect, but the first mouthful is invariably discouraging; for, with such a beautiful exterior, it certainly seems as if the flavor *should* approximate more nearly to it than it proves to do. October.

Sieulle I estimate much more highly. It is of fine size and appearance, with the *exact flavor* of the *White Doyenné*. "Best." October.

Suzette de Bavay I fear is a humbug. Instead of being a splendid winter Pear, keeping until April, it is about the size and shape of the *Yellow Siberian Crab*, and not half as eatable. The tree is a splendid grower, and forms a beautiful pyramid spontaneously, but so far the fruit has proved an utter failure.

Van Mons' Leon le Clerc is a magnificent-looking fruit, but I find it disposed to crack, as is the bark of the tree also. It has not yet proved a very abundant bearer, nor anything remarkable in quality. "Good." October.

White Doyenné is, after all, one of the best Pears in the world, or at least in Western New York. Occasionally a tree is seen bearing cracked fruit, but it is an *exception*, and the *rule* is, large, handsome, beautiful specimens, on both dwarfs and standards, not unfrequently three inches in diameter. "Best." September and October.

Wilhelmine strongly resembles the *Jaminette*, both in wood and fruit. "Good."

Winter Nelis should be a little larger, for it is a capital winter Pear, and there is much more gratification in keeping a large Pear over winter than a small one, even if it *is* "very good."

EVERGREEN SHRUBS.

BY J. JAY SMITH, PHILADELPHIA, PA.

When I asked from the learned correspondents of the *Horticulturist*, over the signature of "Horticola," for information regarding shrubbery of a cheerful, evergreen habit, it was with a view of inviting more attention to a neglected topic long superseded by a continuous description of evergreen *trees*. It is gratifying that the subject has excited the thoughts and pens of several able writers. Mr. Munn first, and, in the April number, Mr. Saunders, have taken the field in earnest, and will, I trust, as occasion presents, give further intelligence, which will be acceptable just in proportion to its facts. The list of Mr. Saunders, for which I feel greatly indebted, though large, is by no means exhausted, but it is a very good list, and is accompanied by judicious remarks.

The only successful planting of Savin (*Juniperus sabina*) which I have ever seen, pleased me exceedingly. It is in the large circle before the beautifully situated mansion of Mr. Craft, a member of the bar, near Pittsburgh. Occupying the entire circle with its dense, almost black green, I exclaimed at once, here at last is a desideratum for America. It was introduced by the German settlers, and the lady of Mr. Craft, who is a most successful and enthusiastic planter, adopted it at once in laying out their grounds. I know of no more striking evergreen thus planted in this country. Once seen in a rich clump, it must become a favorite. Small plants of it from abroad, and possibly at home, by the thousand, can be had for the smallest price.*

Mr. Saunders also names the Tree Box (*Buxus sempervirens*). My experience with this plant indicates that when placed wholly or partially in the shade, it is perfectly beautiful, of intense green, and very much more rapid growth than is generally supposed. Fully exposed to our hot summer suns, however, it is apt to take the color of the variety called the Golden Box (*Buxus aurea*), which is by no means so pleasing to the eye. In England I observed that great use was made of the Tree Box, which is adapted to their moist climate; and that this had been done so many years ago, that great and pleasing results have followed. I once thought I would attempt to enumerate the Box trees that were over twelve feet high in a gentleman's pleasure-ground where I was staying, and counted a hundred and more, when my attention was called off to other beautiful objects. It is by no means uncommon to find a good cottage, of late, run up with taste near or in a copse of native trees. No better undergrowth than this, except the Hemlock, could be selected, as it is very long-lived and every year improves. The variegated should be more sparingly introduced.

But it is not necessary solely to have reference to shrubs, or small-growing plants, where an effect is desired. And here I wish to make a suggestion to the lovers of fine planting, of the utmost interest. Hemlocks, for a long period of growth, afford the best possible substitute for evergreen shrubbery; standing in the shade, too, their exquisite green shining leaves and waving branches, their young shoots so happily described by Willis—"the child-blossom and its predecessor are heightening graces, each to the other—neither so beautiful alone, and both finding room enough, and

* Our common native trailing Juniper is a fine thing for this purpose.

enjoying the same summer together. Parent and child are one glory." An example exists in this neighborhood, which I shall more particularly describe hereafter, with an account of the treatment of the young Hemlocks, where every kind of use has been made of this most beautiful American tree, from the magnificent single specimen, the young tree in groups and nurseries, to the unsurpassed and grateful-hued hedge. The Hemlock is most patient of the shears, and may thus be kept to any size. With submission, therefore, to the able and practical communications of your correspondents, I fearlessly pronounce the Hemlock the *very best evergreen shrub* we yet possess for ornamental planting. It is, moreover, *native*, and free from the objections so many others are liable to—*it is perfectly hardy*. Disappointed planters know the full value of this important quality.

One must read the valuable communications of practical gardeners with attention. As an instance, Mr. SAUNDERS accidentally accounts for my frequent failures in trying the Cotoneasters, by saying "they are admirably adapted for covering rockeries, or planting on the north sides of walls." Had I known sooner that a northern aspect was essential, I might have saved some valuable lives, years back, which were sacrificed by ignorance. And herein lies the value of the *Horticulturist*, which is not to be read carelessly once by the learner, but should be frequently referred to. Every scrap of real knowledge in horticulture is valuable; and so numerous are the facts to be acquired, that the man who would despise a single one which might become available, is no true lover of his art. Aspect, shade, sun, wind, rain, water, soil, manure, &c., every one is taken into consideration by the true horticulturist, whether he plants a tree, a Rose-bush, or a Lily. Hence the worth of experience, and hence the value of facts, communicated by those who know.

I trust the subject of evergreen shrubs will not be lost sight of by the *Horticulturist*, and that every one that can be enumerated will be brought out, and its habits and qualities treated of in this journal of art.

THE CINERARIA—ITS PROPAGATION AND CULTIVATION.

BY E. DECKER, GARDENER TO J. Q. JONES, ESQ., NEW BRIGHTON, STATEN ISLAND.

OF all the winter and spring-flowering plants, the Cineraria deserves to be placed in the foremost rank, whether we consider it as the adopted inhabitant of the conservatory of the wealthy citizen, or the more humble companion of the Scarlet Geranium, which is so often to be seen in the cottage window of the hard-working artizan. For bouquets it is unrivalled, the colors being so varied, which, when nicely arranged, make such handsome ornaments for the parlor table or boudoir that they suit all tastes, that even the most fastidious of EVE's fair daughters can scarce fail to recognize in them a "hobby" far superior to pet cats and poodle dogs, and certainly requiring less care and giving less trouble. We have them in every shade of color from white to dark blue and from white to crimson. Then there are white with crimson, and others with blue tips, in every shade. And when we take into consideration the showy character of a few well-grown plants, with the little room they take, and the simplicity of their

culture, it is rather surprising that they are not more generally grown and to be met with in every green-house, however small, as they certainly deserve to be; then the first outlay being so trifling that a small packet of seed is all that is required for any person, with a little care and attention, to have them in bloom from November till May. Dame Nature is always lavish of her gifts to her votaries, whether they be a Duke of Devonshire or the no less enthusiastic mechanic who prides himself on the few plants in his cottage window. The pleasurable feeling enjoyed by the lovers of Nature, felt by none else, in watching daily the expanding buds of the plants that they themselves have raised with their own hands, makes this a plant well calculated for the fostering care of the lady gardeners of this country, who could thus watch Nature in its onward progress—in its various changes—from the tiny seedling to the full-grown blooming plant, with the pride every lover of plants (and ladies in particular) would feel in showing their friends native seedlings raised and named by themselves in honor of some favorite hero or in memory of some dear friend, and equal to any ever raised in any country. These considerations collectively make this a plant that should be grown by everybody,—in fact, a plant for "the million."

The seed should be sown, one portion the second week in June, and the other the first week in July, in wide-mouthed pots or pans, well drained, in good light soil—two parts leaf-mold, one part good turfy loam, and one part good sharp sand. Fill the pots to within half an inch of the top with the compost, sow the seed evenly all over, and barely cover the seed with the same compost; then give a gentle watering to settle the whole, and place the pots in a frame on the north side of a wall or fence, and by frequent sprinklings of water in the middle of the day they will be fit to pot off in the course of three weeks or a month. Half-pint pots should be used for the first potting, putting four plants in each pot.

As soon as you have potted as many as you require, place them in the frame again, and by paying a little attention to watering and ventilating to prevent them from drawing up weak, they will be large enough to pot singly in another three weeks. You must then use a compost of three parts good turfy loam, two parts leaf-mold, one part good decomposed manure, and one part good sharp sand, the whole well mixed with the spade, but not sifted. Half-pint pots will be large enough for this potting. As soon as potted, place them in a frame in a more open part of the garden, where they will get the morning and evening sun, shading them when very hot. Frequent watering overhead is necessary to check the Red Spider, and smoking with tobacco to keep down the Green Fly, both of which are deadly enemies of the Cineraria. They should be frequently repotted as they progress, as nothing gives them a greater check than to be pot-bound. They require a liberal supply of water, using weak manure water once a week. When they begin showing flower early in October, remove them to the front platform of the green-house, and in November they will commence flowering, and continue till the middle of May.

DIRECTIONS FOR MAKING BOUQUETS AND FLORAL ORNAMENTS.

BY D. R. K., ROXBORO, PA.

HAVING considered, in my last communication, the preliminaries which should be observed by those who expect success in the art of making floral ornaments, I now come to the more practical part of the subject, namely, the making or putting together of the bouquet. And first, of the hand bouquet.

Fig. 1.

Fig. 2.

As I have already observed, the hand bouquet should not exceed eight inches in diameter, and if for an ordinary occasion, the flowers may be gathered without regard to color; but for a bridal bouquet white flowers should predominate, although Violets, Mignonette, and Heliotropes may be added for perfume. For an ordinary boquet, six or more large flowers are requisite, giving the preference to Camellias and Roses. The Camellias should be cut off close to the calyx of the flower, and an artificial stem provided for it, either by a wire bent as shown in fig. 1, which is thrust down through the center of the flower, between the petals, so as to be entirely concealed, or else by passing the wire laterally through the upper part of the calyx and the lower part of the petals, as in fig. 2. In the latter case the two ends of the wire should be bent down and twined together. The Camellia is also sometimes cut off with a small portion of the stem, and tied to a small stick or twig. Be very careful in handling the Camellias, as the slightest bruise will impair their beauty. The Roses can either be cut with long stems or tied to supports. The smaller flowers should be arranged in very small bunches, or singly, and also tied to twigs or *whisk*. If the bouquet is of the pyramidal form, it should be made on a strong stick, as in fig.

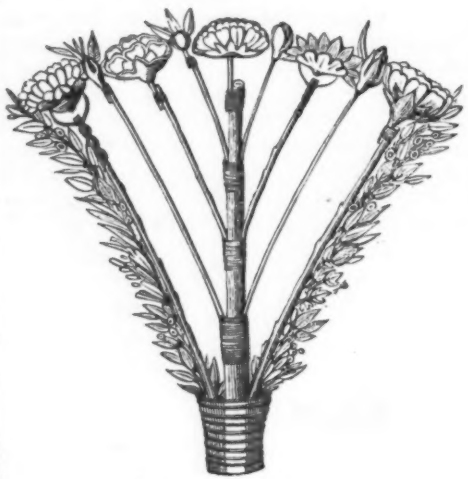


Fig. 3.

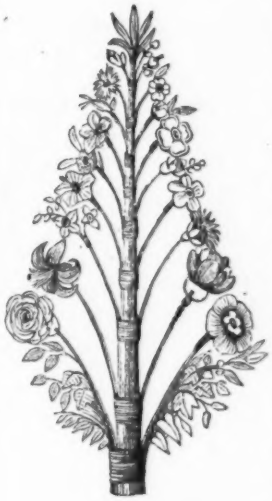


Fig. 4.

4, commencing at the top with the smaller flowers, and gradually widening at the base with the larger, taking care to assort the colors so as to make as much contrast as possible, and also to fill in the interstices between the larger flowers with the smaller.

If the bouquet is flat, as shown in fig. 3, it is not absolutely necessary to have a strong stick in the center, but I would recommend it on account of its advantages in preserving a symmetrical form. Begin with a Camellia or Rose for the center, then a circle of small flowers, then say four or more Roses or Camellias disposed around the center, and then another circle of small flowers; and then, if the bouquet is not large enough, another row of Camellias or Roses, and a few more small flowers, finishing with a circle of Rose or Oak-leaf Geranium leaves tied singly to whisk straws, and some Arbor Vitæ, Cedar, or other evergreen, below all. To preserve a flat or oval surface to a bouquet, be careful not to tie the stems or twigs too high up on the center stick, for in that case the flowers would face *outward*, as in a pyramidal bouquet, instead of *upward*.

If you wish a bouquet to be kept for a long time, the interstices between the twigs or stems should be filled with moss, evergreen, or anything that will retain moisture.

It will add much to the grace and beauty of the bouquet to introduce skillfully some handsome green foliage to break the monotonous effect, and some of the smallest and choicest flowers should be allowed to project beyond the surface of the bouquet.

Large bouquets, or pyramids, for table ornaments, are generally made on a frame-work of evergreen. For this purpose, take a number of branches of Cedar, Hemlock, or other evergreen, and bind them in a kind of sheaf, with strong

Fig. 5.

twine, commencing at the top. After it is properly secured, trim off the stems at the base with a knife, so as to be perfectly even, and with a pair of scissors or shears clip the top so as to form a perfect cone. The flowers are to be inserted into this.

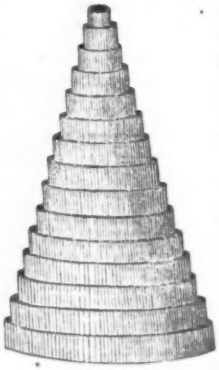


Fig. 6.

Fig. 6 represents a very complete apparatus for preserving flowers in water, and at the same time arranging them into the proper form for a table ornament. It is composed of a number of circular tin vessels, one over another, and diminishing in size from the base up, forming a cone. These vessels are filled with water, and the stems of the flowers inserted into them.

Fig. 7 is a graceful design for a wire basket, to be lined with moss. It is of the shape called by the ladies "gipsy," and the effect of it when filled with flowers is far more graceful than those of a more formal and rigid pattern. A wire basket for moss should have a wooden base, and after the *sides* are lined with moss, the basket should be filled with wet or damp sand, which should be covered neatly with moss, taking care that the surface is oval, so as to display the flowers to advantage. The stems of the flowers should be inserted in holes made with a sharp stick in the sand. The choicest and smallest flowers should be used to cover the handle.

Fig. 5 represents a table ornament of simple construction, but of graceful design. Take a large-sized flower-pot, of say from fourteen to eighteen inches diameter, and cover its sides with sheets of moss, secured by passing strong black linen thread around it. This should be mounted on a wooden base formed of two square blocks of wood, one smaller than the other, surmounted by a circular or cylindrical piece of wood. In the upper end of the latter should be a wooden or iron peg or bolt, which should pass up through the circular hole in the bottom of the flower-pot, to keep it in its proper place. On the upper edge of the flower-pot, place a rim formed of a band of hay two or three inches in diameter, either twisted or tied around with twine. This and the wooden base should also be covered with moss. The pyramid of flowers may be made on a framework of evergreen, as just directed, or the apparatus fig. 6 may be used. Festoons on the sides would add greatly to the beauty of this design, and should be formed on pieces of hoop or wire. They should be large in the middle, and gradually diminish at both ends.

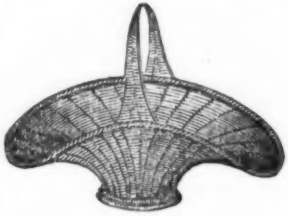


Fig. 7.

I have thus, Mr. Editor, endeavored, huriedly, and briefly as possible, to describe, for the benefit of my amateur friends, the process of making bouquets and floral designs, and hope that I have succeeded at least in affording them some assistance.

NEW PLANTS OF 1854.

We take from the *National Garden Almanac*, (*London*,) the following concise descriptions of the more important new plants introduced into England in 1854, some of which have already been noticed in previous numbers of this journal:

Abies Kæmpferi.—A beautiful tree of deciduous habit; supposed to be quite hardy, having been found in the central, northern, and eastern provinces of China. *Mr. Glendinning.*

Acacia Drummondii.—Showy and of neat habit; flowers yellow, in large oblong heads. Swan river. Greenhouse evergreen shrub. *Messrs. Veitch.*

Acrolineum roseum.—A beautiful new annual, bearing "everlasting" flowers, which are of a lively rose color. South-west Australia. Greenhouse, or half-hardy annual with greenhouse cultivation. *Kew Bot. Gard.*

Alloplectus chrysanthus.—Probably a fine showy species; flowers golden yellow, with a red velvety calyx, the leaves glossy velvet-like purple beneath. Columbia. Stove perennial. *M. Linden, Brussels.*

Amomum Danielli.—Curious; one of the Mellagetta Peppers; flowers red and whitish, tinged with rose and yellow. Western tropical Africa. Stove perennial. *Kew. Bot. Gar.*

Anœctochilus albo-marginatus.—One of the variegated-leaved dwarf terrestrial Orchids; requires a hot damp stove. *Messrs. Jackson.*

Anguloa Ruckeri sanguinea.—A fine variety of a fine and well known Orchid; flowers uniform rich chocolate brown. History not stated. Stove perennial. *Messrs. Rollisson.*

Aphelandra lateritia.—Handsome; flowers dull scarlet, with yellowish tube, arranged in a cone-like head. Guatemala. Stove shrub. *Messrs. Weeks & Co.*

Aphelandra squarrosa Leopoldi.—A bold and showy variegated-leaved shrub, bearing handsome spikes of yellow flowers; the deep green leaves are marked by well defined broad whitish veins. Brazil. Stove soft-wooded shrub. *M. Van Houtte, Ghent; and Messrs. Veitch.*

Astrocaryum rostratum.—A noble Palm, which has flowered at Kew; it has leaves 6—8 feet long; flowers whitish. Brazil. Stove tree. *Kew Bot. Gard.*

Azalea indica Beali.—A very showy native variety from China; flowers striped with bright vermilion on a white ground. Greenhouse evergreen shrub. *Standish & Noble.*

Azalea indica narcissiflora.—Singular as well as handsome; flowers white, double. From China. Green-house evergreen shrub. *Messrs. Standish & Noble.*

Begonia opuliflora.—Said to be an ornamental plant; flowers pure white, with golden stamens, in heads resembling the Gueldres Rose. New Grenada. Stove soft-wooded subshrub. *M. Linden, Brussels.*

Begonia Prestoniensis.—A variety of this fine hybrid scarlet-flowered *Begonia*, bearing the name of *superba*, has been exhibited during the summer. Like the original, it is a very showy plant. *Mr. Epps.*

Boronia Drummondii.—A gay dwarf shrub; flowers lively rose pink. West Australia. Green-house evergreen shrub. *Messrs. Low & Co., and others.*

Buddleia crispa.—An interesting and fragrant plant; flowers pale purple. Western Himalaya. Half-hardy shrub suitable for a wall. *Glasnevin Bot. Gard.*

Calycanthus occidentalis.—Very handsome, the wood fragrant as in the allied Carolina Allspice; flowers large, dull purplish red. California. Introduced in 1831, but little known. Hardy shrub. *Horticultural Society.*

Calyptraria hæmantha.—Splendid both in foliage and flower, the latter of which are said to be not fugitive as is common among Melastomads; flowers large, rich purple crimson. New Grenada. Stove shrub. *M. Linden, Brussels.*

Campanumœa lanceolata.—Curious and interesting; flowers bell-shaped, greenish outside, purplish and mottled within. Japan. Green-house climber. *M. Van Houtte, Ghent.*

Cassiope fastigiata.—A charming little evergreen shrub, with the leaves closely imbricated in four rows, and with drooping white bell-shaped flowers. Himalaya. Hardy evergreen shrub, requiring a cool moist peat bed. *Glasnevin Bot. Gard.*

Ceanothus floribundus.—Beautiful, and of neat habit; flowers rich deep blue, in dense globular heads, which are thickly studded over the branches and branchlets. California. Hardy evergreen shrub. *Messrs. Veitch.*

Ceanothus Lobbianus.—Distinct and showy; flowers deep blue, in stalked oblong or roundish heads. California. Hardy evergreen shrub. *Messrs. Veitch.*

Cereus Lemairii.—A very fine new night-blooming Cactus; flowers very large, twelve inches long and nine in breadth, outside yellow, tinged with red, inside white. Supposed to be a native of Antigua. Dry stove shrub of straggling habit. *Kew Bot. Gard.*

Cestrum Regelii.—Exceedingly ornamental, rivaling the well-known *C. aurantiacum;* flowers bright orange. Central America. Cool stove or green-house shrub. It belongs to the *Habrothamnus* group, and has the habit of *H. elegans. Zurich Bot. Gard.*

Chætogastra Lindeniana.—A fine ornamental species; flowers large, blackish-purple. Alpine districts of the Columbian Andes. Cool stove or green-house shrub. *M. Linden, Brus'ls.*

Chionanthus retusus.—A shrub with white sweet-scented flowers. China. Probably hardy or nearly so. *Messrs. Standish & Noble.*

Clematis barbellata.—A rather pretty species; flowers large, chocolate, bordered with cream color. Western Himalaya. Hardy climber. *Glasnevin Bot. Gard.*

Clematis lanuginosa pallida.—A fine *Clematis* in the way of *C. patens* (*cærulea*). The species has cœrulean-blue flowers; the variety much paler, grayish, almost white. North China. Hardy climber. *Messrs. Standish & Noble.*

Clematis patens "*Sophia.*"—*C. patens* is the proper name of what is called in England *C. cærulea.* The plant named *Sophia* is a fine large-flowered variety of it, having a broad green band down the sepal. *M. Van Houtte, Ghent.*

Clerodendron Bungei.—Showy under good management; in the way of the single-flowered *C. fragrans;* flowers rose-colored. Northern China. Shrub, hardy at the root. *Messrs. Standish & Noble.*

Cœlogyne pandurata.—A fine epiphyte, flowers large, pale green, the lip yellowish green, with broad black veins, and stains. Borneo. Stove epiphyte. *Messrs. Low.*

Coutarea diervilloides.—Showy; flowers like *Wiegela rosea*, white inside, pink without, in rich terminal panicles. Columbia. Stove shrub. *M. Linden, Brussels.*

Cymbidium pendulum atropurpureum.—A variety of well-known Orchid with deep purple flowers, the lip ribbed with yellow. Borneo. Stove epiphyte. *J. Knowles, Esq.*

Cypripedium villosum.—A fine showy Orchid somewhat resembling *C. insigne;* flowers green, brown, and purple. Moulmein. Stove perennial. *Messrs. Veitch.*

Dendrobium macrophyllum giganteum.—A remarkably showy plant, having the light rosy-colored flowers four times as large as usual. Appears to have been obtained, without history, from the Continent. *Messrs. Veitch.*

Desfontainia spinosa.—A lovely glossy, holly-like, evergreen shrub, with long tubular flowers of scarlet and yellow. Valdivia. Hardy evergreen shrub. *Messrs. Veitch.*

Dichorizandra picta.—Neat and pretty; the leaves longitudinally blotched with brown, and pink beneath; the flowers white and purple. Supposed to come from Brazil. Stove perennial. *Messrs. Low.*

Diervilla Mildendorfiana.—The so-called yellow *Wiegela;* a hardy shrub, with primrose-colored flowers, half as large as those of *W. rosea.* Received on the Continent *via* Russia.

Dracæna elliptica maculata.—Variegated leaves; flowers greenish. Ornamental in foliage and habit. Java. Stove evergreen shrub. *Messrs. Low.*

Echites pellieri.—See *Neriandra suberecta.*

Embothrium lanceolatum.—A fine evergreen proteaceous shrub, allied to *Telopea.* From Chili. Probably half-hardy. *Messrs. Standish & Noble.*

Escallonia densa.—Pretty; flowers numerous, pinkish-white. Merida. Green-house shrub. *M. Linden, Brussels.*

Eschscholtzia tenuifolia.—Neat and desirable, the habit being compact and dwarf; the flowers are yellow, an inch across. California. Hardy annual. *Messrs. Veitch.*

Eugenia oleoides.—Graceful; flowers white in axillary panicles. History not given. Green-house evergreen shrub. *M. Linden, Brussels.*

Franciscea eximia.—One of the finest of the Francisceas; flowers large, rich lilac-purple, paler after expansion. Brazil. Stove evergreen shrub. *Chelsea Bot. Garden.*

Fraxinus dipetala.—A fine tree, with purple branches, green foliage, and elegant white flowers. New Mexico. Hardy tree. *F. Scheer, Esq.*

Gesnera Donckelaariana.—A very showy plant, bearing panicles of rich crimson Gloxinia-like flowers. A hybrid, said to have been raised between *Gesnera discolor* and *Gloxinia rubra*, in the *Ghent Bot. Garden.*

Gomphrena coccinea.—Ornamental, requiring the treatment of tender annuals; flower-heads brilliant orange color. Mexico. Warm green-house perennial. *M. Vilmorin, Paris.*

Gonolobus pyrrhotrichus.—Curious; the flowers dull green with obscure netting, and fine bright yellow coronal teeth. Brazil. Coarse stove climber. *Messrs. Weeks & Co.*

Gentiana Fortuni.—A very beautiful herbaceous plant, the flowers of which are deep blue, spotted with white. Northern China. Supposed to be quite hardy. *Messrs. Standish & Noble.*

Goldfussia glomerata speciosa.—Coarse, but showy; flowers deep purple. Sylhet. Soft-wooded stove shrub. *Kew Bot. Garden.*

Gardenia globosa.—A neat shrub with fragrant white flowers. Caffraria. Green-house evergreen shrub. *Messrs. Backhouse.*

Hedaroma tulipiferum.—A plant of considerable promise; resembles a broad-leaved *Diosma;* flowers surrounded by a cup-shaped involucre which is greenish white, stained with dull red, in which involucre resides the beauty of the plant. New Holland. Green-house evergreen shrub. *Messrs. Garraway.*

Hexacentris mysorensis lutea.—Showy; flowers large yellow, in pendant racemes. India. Stove evergreen climber. *Messrs. Veitch.*

Hippeastrum formosissimum.—Very showy; the flowers deep crimson, like the Jacobean Lily in color, but larger, and of the form of *H. vittatum.* History unknown. Stove bulb. *C. Leach Esq.*

Hydrolea azurea.—A pretty little plant, covered with a multitude of beautiful azure flowers, against which the stamens stand out like silver stars. Mexico. Green-house branching perennial. *M. Linden, Brussels.*

Hypoxis latifolia. Interesting. A bulbo-tuberous plant, with star-shaped yellow flowers. Natal. Green-house perennial. *Kew Bot. Garden.*

Imantophyllum miniatum.—A splendid Amaryllidaceous plant, allied to *Clivia;* flowers large, in a fine umbel, vermillion colored. Natal. Green-house perennial. *Messrs. Backhouse.*

Kniphofia Uvaria.—An old name, proposed to be revived, for one of the handsomest of border flowers, bearing a dense ovate cylindrical head of rich orange scarlet flowers. From the Cape, introduced long since, and known as *Tritoma.*

Laurelia aromatica.—A handsome, fragrant, fleshy-leaved evergreen shrub, from the mountains of Chili. Hardiness not ascertained. *Messrs. Standish & Noble.*

Leptosiphon luteus aureus.—A deeper colored variety of this exceedingly pretty half-hardy annual. California. *Messrs. Veitch.*

Linum grandiflorum.—A splendid annual when obtained true, but a large-flowered common flax is often sold under this name; flowers large crimson. Algiers. *Introduced from Paris.*

Lobelia Ghiesbreghti.—Said to be pretty; flowers red, expanding in succession the whole summer. Mexico. Green-house perennial. *M. Linden, Brussels.*

Lomaria Chilensis.—A fine, robust-looking, hardy fern, of ornamental character. Chili. *Messrs. Veitch, and Messrs. Standish & Noble.*

Lomatia ferruginea.—A fine evergreen proteaceous shrub, also called *Embothrium ferrugineum;* fine dark, twice-divided foliage. Chili. Green-house evergreen shrub. *Messrs. Veitch, and Messrs. Standish & Noble.*

Lycaste costata.—A large-flowered Orchid; green, with a yellowish-white lip. Peru Stove epiphyte. *R. Hanbury, Esq.*

Lysimachia Leschenaulti.—A pretty and useful plant for the flower garden and for pots; flowers rosy, in dense racemes. Neilgherries. Half-hardy sub-shrub. *Messrs. Osborn.*

Maranta Warscewiczii.—Finely variegated foliage, deep green, marbled with gray about the mid-rib, purple beneath; the flowers seem unknown. Central America. Stove perennial. *M. Mathieu, Berlin.*

Marcetia andicola.—Neat; flowers, pink. Venezuela. Stove dwarf shrub. *M. Linden, Brussels.*

Marsdenia lucida.—A robust climber, with fine thick foliage, and dingy purple flowers. Himalaya. Hardy in Ireland. *Glasnevin Bot. Garden.*

Methonica virescens Plantii.—The *Gloriosa Plantii* of English gardens. Showy and curious; flowers orange colored. Natal. Warm green-house tuberous perennial. *Messrs. Henderson & Co., and others.*

Neriandra suberecta.—This fine showy stove climber, with yellow blossoms, has been recently re-introduced from the French gardens, under the name of *Echites Pellieri.*

Nycterinia selaginoides.—Pretty; flowers in a corymb, white, with a deep yellow eye. Cape of Good Hope. Green-house annual of dwarf spreading habit. *Horticultural Society.*

Oncidium ionosmum.—Showy; flowers yellow, the sepals and petals spotted with brown; they have a delightful odor of violets. History not stated. Stove epiphyte. *A. Kenrick, Esq.*

Oncidium reflexum cæsium.—A glaucous-leaved variety of *O. reflexum*, named *O. cæsium* in the German gardens.

Oxylobium Osborni.—Very ornamental; flowers bright orange, very profuse. New Holland. Green-house evergreen shrub. *Messrs. Osborn.*

Pentas carnea rosea.—An imported variety of the well known *P. carnea*, having much deeper-colored flowers, of a rosy tint. *Messrs. Osborn.*

Phrynium micans.—A stemless plant, with dark green leaves having a central longitudinal streak of whitish red, dull brown red beneath; flowers white, with rosy bracts. Peru. Stove perennial. *M. Mathieu, Berlin.*

Pinckney ionantha.—Said to be a fine species, with dark violet flowers and a purple calyx divided so as to resemble a stalked petaloid leaf. New Grenada. Stove shrub. *M. Linden, Brussels.*

Pinus Jeffreyana—Pinus Parryana.—Hardy California Pines, of which nothing further is known. *Messrs. Law & Co.*

Pinus Royleana.—A new Indian Pine with small cones, belonging to the two-leaved group. Supposed to be quite hardy from growing 8–10,000 feet elevation in Nepal. *Horticultural Society.*

Pitcairnia longifolia.—A fine species, of ornamental habit, with an erect, elongated stem, and branched panicle of scarlet flowers. Lima. Stove shrub. *Kew Bot. Garden.*

Pitcairnia muscosia.—Pretty and lively as a winter bloomer; flowers red. Brazil. Stove perennial. *Kew Bot. Garden.*

Pittosporum crassifolium.—A fine evergreen shrub, with dull leathery crimson flowers. New Zealand. Green-house evergreen shrub. *Claremont.*

Pittosporum flavum.—A fine, showy species; flowers large, yellow, in large corymbs. East Australia. Green-house evergreen shrub. *Kew Bot. Garden.*

Primula mollis.—A handsome hardy or half-hardy perennial; flowers deep rose-colored; habit like *P. cortusoides.* Mountains of Bootan. *Mr. Nuttall.*

Psammisia penduliflora.—Handsome in foliage and brilliant in blossom; flowers vermilion and yellowish-green; near *Thibaudia.* Venezuela. Cool stove shrub. *M. Linden.*

Rhododendron camelliæflorum.—Curious, the flowers resembling a single Camellia; white. Bootan Alps, 9–12,000 feet elevation. *Messrs. E. G. Henderson.*

Rhododendron cinnabarinum pallidum.—An elegant variety of one of the pretty Sikkim species; flowers rose-pink. Himalaya. Hardy evergreen shrub. *Kew Bot. Garden.*

Rhododendron citrinum.—An interesting Javanese species, with neat primrose-colored flowers. Java, at from 5,000 to 9,700 feet elevation. Green-house evergreen shrub. *Messrs. Rollison.*

Rhododendron Keysi.—"A hardy distinct shrub; flowers below the summit of the branch;" color unknown. Bootan Alps, at 9–10,000 feet elevation. *Messrs. E. G. Henderson.*

Rhododendron Jenkinsi.—"A fine shrub, hardy, or nearly so; flowers supposed, from the examination of the buds, to be yellow." Mountains of Bootan, at 6–7,000 feet elevation. *Messrs. E. G. Henderson.*

Rhododendron longifolium.—"A magnificent foliaged plant;" flowers unknown. "To all appearance nearly hardy." Mountains of Bootan, at 6,500–7,500 feet elevation. *Messrs. E. G. Henderson.*

Rhododendron Nuttali.—"A magnificent green-house species; the largest-flowered Rhododendron known; flowers white, with tint of rose, and yellow at the base; delightfully fragrant." Bootan, at 4–5,000 feet elevation. *Messrs. E. G. Henderson.*

Rhododendron Windsori.—"A fine hardy species; flowers deep crimson scarlet; dwarf habit, and large truss." Mountains of Bootan. *Messrs. E. G. Henderson.*

Sabbatia stellaris.—Beautiful; flowers deep rose, with a yellowish-green star-shaped eye. Southern United States. Green-house perennial herb. *Frogmore.*

Salvia porphyrantha.—Showy, without coarseness; flowers brilliant scarlet, in erect racemes. History not stated. Green-house soft-wooded shrub. *French gardens.*

Sciadocalyx Warscewiczii.—Ornamental, of erect herbaceous habit; flowers scarlet, with an orange spotted throat, Gesnera-like. Santa Martha. Stove perennial. *M. Van Houtte.*

Scutellaria villosa.—A coarse-leaved plant, but having brilliant scarlet flowers. Andes of Peru. Stove soft-wooded shrub. *Kew Bot. Garden.*

Senecio præcox.—A tree groundsel, coarse in foliage, but really showy in spring; flowers yellow. Mexico. Green-house shrub. *Kew Bot. Garden.*

Sonerila margaritacea.—A beautiful little variegated herb with deep green leaves, marked with white oval spots, "as if sown with pearls;" flowers bright rose color. India. Stove perennial. *Messrs Veitch.*

Spiræa callosa.—A splendid shrub; flowers deep rose color, in broad flat heads. Northern China. Hardy shrub. *Messrs. Standish & Noble.*

Spiræa grandiflora.—An ornamental shrubbery plant sent by Mr. FORTUNE as an *Amelanchier;* flowers large, white. Northern China. Hardy shrub. *Messrs. Standish & Noble.*

Tecoma spectabilis.—Showy; the flowers large and bright yellow, in terminal clusters. New Grenada. Cool stove shrub or small tree. *M. Linden, Brussels.*

Thuiopsis borealis.—A garden name for some unrecognized, and possibly new, hardy coniferous plant, reported to come from the north of India. *Mr. Pontey.*

Thuiopsis dolabrata.—A noble evergreen tree, with flattened branches like *Thuja.* Japan. Probably hardy. *Leyden Bot. Garden.*

Thuja gigantea.—A noble evergreen tree, the branches "resembling some of the more graceful species of Lycopodium." California. Hardy evergreen tree. It is also called *Thuja Menziesii, T. Craigiana,* and *Libocedrus decurrens. Messrs. Law & Co.*

Torreya myristica.—The California Nutmeg, a beautiful evergreen tree, with the aspect of *Cephalotaxus.* From the Sierra Nevada of California, and probably a hardy plant. *Messrs. Veitch.*

Tovaria pendula.—Botanically interesting; flowers yellowish-white. Venezuela. Greenhouse annual. *M. Linden, Brussels.*

Trichocentrum purpureum.—*Trichocentrum pineli.*—Two small and unimportant epiphytes, the first from Rio, with cinnamon, the second from Demerara, with olive-green flowers. Stove epiphytes. *Messrs. Veitch.*

Warrea quadrata.—Pretty; the flowers large white, the lip involute Gloxinia-like, deeply bordered with red. Central America. Stove perennial. *Messrs. Jackson.*

Wellingtonia gigantea.—One of the most noble of evergreen trees, having, in fact, an imperial aspect, and attaining almost fabulous size. California. It is believed to be quite hardy. *Messrs. Veitch.*

Whitlavia grandiflora.—A beautiful annual with the habit of *Eutoca viscida;* flowers large, bell-shaped, deep purple. California. Hardy annual. *Messrs. Veitch.*

ENGLISH PRIZE FLOWERS OF 1854.

We take the following list of prize varieties of the most popular classes of florists' flowers from *The National Garden Almanac and Horticultural Trade Directory for* 1855.

In 16 meetings, the past season has brought forward about 650 plants and blooms, supplied by more than 100 exhibitors. The total awards are 59. Of these, 20 are First Class, 32 Certificates of Merit, and 7 Labels of Commendation, the which are herewith given.

AURICULA.

"*Eclipse*" (Turner.), C.M.—Grey edge, very dense black ground, with fine paste, tube of fair average, with good truss of ten expanded pips, which are of general average form.

"*King of Crimsons*" (Turner.), L.—This is an Alpine, with buff-colored ground and brilliant crimson edge, in form first rate, the pips of medium size, but of good substance, the truss small, the plant blooming for the first time.

AZALEA.

"*Criterion*" (Ivery and Son.), F.C.C.—A pinkish flesh color, distinctly margined with white, and occasionally striped with purplish crimson, the throat spotted with the same color, of very good form, large size, rather slight substance, the foliage small and neat.

"*Robinsoni*" (Robinson.), F.C.C.—A soft vermillion scarlet, with slight marking in the throat, of good form, medium size, and first rate waxy substance.

"*Gem*" (Ivery and Son.), F.C.C.—A rich deep salmon color, slightly spotted at the base of the upper segments, of first rate form, medium size, and stout substance.

CALCEOLARIA.

"*Eclipse*" (Cole.), F.C.C.—A bright crimson, with slight margin of yellow on the upper side of the flowers, of dwarf habit, and medium size, good truss, and of good form and substance, the foliage not first rate.

"*Shrubby Dazzle*" (Cole.), L.—A maroon, of good bedding habit, bold truss, and large flowers.

CARNATION.

"*Exit*" (May.), F.C.C.—A scarlet flake, with good white, a large flower, of good form, size, and substance.

CINERARIA.

"*Lady Mary Labouchere*" (Turner.), F.C.C.—White, with violet edge, and violet purple disc, of very good form, and medium size.

"*Mrs. Foster*" (Turner.), C.—White, with a deep margin of heavy lilac; of good form, medium size, and desirable substance.

"*Rose of England*" (Bousie.), C.—Clear white, with a deep edging of rosy purple; of medium form, rather large size, and rather slight substance.

"*Sir Charles Napier*" (Turner.), C.—A solid indigo blue self, disc of same color; of good form for its color, of average size, and good substance.

"*Admiral Dundas*" (Ivery.), C.—Clear white ground, deeply edged with rich crimson purple, and purple disc; striking color, and good habit.

"*Fascination*" (E. G. Henderson.), C.—Cobalt blue, and grey disc, surrounded with narrow circle of white; of robust habit, first rate form, medium size, good substance, a chaste and attractive flower.

"*Lady Paxton*" (Turner.), C.—Purplish lilac on a white ground, and very dark purple disc, the truss and flowers very large; of good substance; one of the boldest and most free flowering varieties.

"*Query*" (Lochner.), L.—Light purple, with a white circle round a purple disc; a good truss, moderate form, and medium size.

DAHLIA.

"*Miss Frampton*" (Rawlings.), F.C.C.—A deep blood ground, with shaded white tip; of good form and substance, and medium size.

"*Ruby Queen*" (Keynes.), F.C.C.—Brilliant ruby color; of very good substance, medium size, and good form.

"*Baron Alderson*" (Perry.), F.C.C.—A pure orange color, with white tip; a good form as a fancy; of full size, and good substance.

"*Espartero*" (Turner.), F.C.C.—A rich crimson; of first rate form and good substance, size below medium.

"*Mrs. Stowe*" (Dodds.), C.—A delicate lilac; of middling form, medium size, and fair substance.

"*Lady Folkstone*" (Keynes.), C.—A yellowish buff, tipped with bright rosy purple; form middling, the center being rather flat; of medium size, and good substance.

"*Comet*" (Keynes.), C.—Light yellow ground, with light pink edge, and striped and spotted with deep carmine; form middling, and slightly ribbed; of medium size, and fair substance; a useful fancy show flower.

"*Mrs. Howard*" (Pope.), C.—Light yellow, shaded and tipped with rich salmon; of a middling form, medium size, and good substance; a very useful and promising flower of its class.

"*Lolly Pop*" (Holmes.), C.—A rosy buff, tinged with lilac; good form, medium size, and average substance; novel color; a first class form, but produced by the petals being reflexed.

"*Cossack*" (Rev. C. Fellows.), C.—Brilliant crimson; of second rate form, full size, and good substance; a good center, and apparently constant.

"*Fanny Russell*" (Prockter.), C.—A salmon color ground, sides of petal orange buff, with large flesh color tip; a somewhat flat form, of medium size, and average substance; a useful fancy flower.

"*The Nigger*" (Rev. C. Fellows.), C.—A very dark purple, approaching black in the center; of middling form, average size, and fair substance; of distinct color, and apparently constant.

FUCHSIA.

"*Thalia*" (Turner.), C.—White waxy tube, slightly tipped with green, corolla very deep rose; of first rate habit, and very fine foliage.

GERANIUM.

"*Brilliant*" (Skelton.), C.—Brilliant orange scarlet, with neat and small foliage; a good truss; flowers small; form and substance good.

"*Variegated Queen*" (Cole.), C.—A light brilliant scarlet; foliage green, edged with pale or sulphur yellow, mottled with light carmine; the truss large, having a great number of pips; the flower large size, and substance good.

HOLLYHOCK.

"*Lord Jocelyn*" (Messrs. Paul.), F.C.C.—A brilliant carmine; of first rate form, full size, and good substance.

PANSY.

"*Mr. Thomson*" (Bragg.), F.C.C.—A deep yellow ground, with broad margin of deep maroon; a bold solid eye, the lower and side petals laced with uniform yellow; of medium form and substance.

"*Memnon*" (Turner.), C.—A dark purple maroon, of average form and substance; large size, texture and surface good; color solid, and free from the usual light shade in the center of dark selfs.

"*Beauty*" (Downie and Laird.), C.—A creamy white ground, with a heavy belting of purple; the eye not first rate; of medium size, and moderately good form and fair substance.

PELARGONIUM.

"*Wonderful*" (Hoyle.), F.C.C.—The upper petals maroon, paler near the margin, and narrowly bordered with rosy pink, the lower petals rosy pink, slightly blotched with carmine, and a pure white center; of dwarf vigorous habit, a very abundant bloomer, truss of four and five pips; of medium size, and good form and substance.

"*Conqueror*" (Beck.), F.C.C.—A crimson, with dark rich maroon, upper petals margined with crimson; of middling habit, and medium truss, averaging five pips, of good form and substance; foliage rather small.

"*Phæton*" (Foster.), F.C.C.—A carmine crimson, with dark upper petals margined with rich carmine; of good habit, the truss medium, averaging four pips, and of first rate form, size, and substance, and good foliage.

"*Ne plus ultra*" *Fancy* (Turner.), F.C.C.—Dark purple maroon, lower and upper petals margined with lilac; of first rate habit, and good truss; the flowers large, with good foliage, and with first rate form and substance.

"*Gem of the West*" (Dobson.), C.—White ground, upper petals marked with rich crimson; of good habit and substance; outline good, but slightly reflexed; flowers of medium size, the truss of five pips well arranged; short-jointed, and good compact foliage.

"*Grand Sultan*" (Turner.), C.—Upper petals very rich dark maroon, with faint carmine edge, lower petals light carmine, with bold maroon spot, and veining the eye rather bluish;

of vigorous habit, the truss averaging four blooms, of medium size, of average good form and substance.

"*Serena*" (Hoyle.), C.—Upper petals very dark maroon, with pale rosy margin, lower petals pale lilac rose, with deeper colored blotch and veins, center pure white; of vigorous habit, and the truss averaging five blooms, of medium size, and of average form and substance.

"*King of Crimsons*" *Fancy* (Turner.), C.—Purple crimson, with light throat; of good character and habit; middling truss, form, and substance.

"*Pandora*" (Turner.), C.—The upper petals a dark rich maroon, slightly margined with crimson, veined clean light throat, a good truss, averaging five pips, of medium habit, and good form and substance.

"*Silenus*" (Beck.), C.—A shaded crimson, upper petals dark rich maroon, margined with crimson; foliage and habit good, truss averaging five pips, form middling, of medium size and good substance.

"*Lord Raglan*" (Hoyle.), L.—Bright rosy scarlet, shaded with orange scarlet around the veiny maroon blotch; lower petals rather paler; a bold truss, averaging six flowers of large size and good substance.

BEDDING PELARGONIUM.

"*Sydonia Carminia*" (Mrs. Latham.), C.—A salmon pink shaded; of very good bedding properties.

PHLOX.

"*Annuflora Compacta*" (Dobson and Son.), C.—A white, of dwarf habit, very compact; the flowers rather small; of good shape and substance.

PICOTEE.

"*Finis*" (May.), F.C.C.—A white, lightly edged with deep purple; of large size, first rate substance, and good form.

"*Mrs. Headley*" (Turner.), F.C.C.—A white, deeply edged with carmine; of good form, first rate substance, and middling size.

PINK.

"*Brunette*" (Maclean.), C.—A full flower, heavily laced with purplish crimson; the petals bold and remarkably broad, but with a serrated margin; of medium size, and good form and substance, but rather deficient in the crown, and a first rate pod.

"*New Criterion*" (Maclean.), C.—A good petal, with a moderate and even lacing of purple; of medium size and moderate form.

SWEET WILLIAM.

"*Splendens*" (Hunt.), L.—Vivid crimson, with darker ray around the paler center; full size and good form, rather cupped.

"*Omer Pasha*" (Hunt.), L.—Dense velvety carmine, with brilliant carmine center; of full size, good form, and the petals flat.

"*The Prince*" (Hunt.), L.—Carmine, with darker mottled ray, and rather paler eye; of medium size, and good form.

ROSE—HYBRID PERPETUAL.

"*Duchess of Norfolk*" (Wood and Son.), C.—A deep carmine; of first rate habit as a pillar Rose, with good foliage; of full size, and fair substance.

VERBENA.

"*Boule de Feu*" (G. Smith.), F.C.C.—A bright orange scarlet, with distinct light eye; form good, and a first rate truss.

"*Lady Lacon*" (Turner.), F.C.C.—Pale rose color; truss full (twelve pips), of circular form and good substance; the habit and foliage good.

"*Wonderful*" (Turner.), C.—Bright rich purple, with light eye; good habit and foliage; a full truss of from fifteen to twenty pips; large flowers, of not first rate form; the substance good.

RURAL CEMETERIES.

BY A. D. G., CLINTON, N. Y.

It is, doubtless, a dictate of our common humanity, to cherish reverence and affection for the ashes of the dead. Even the savage, driven into the wilderness by the march of civilization, parts from the graves of his fathers as reluctantly as from his corn-fields and hunting-grounds. Some men, it is true, affect indifference concerning the place and manner of their sepulture. Like certain of the ancients, who gave orders that their bodies should be burned, and the ashes thrown to the winds,—or others, who would have their remains exposed to the birds and beasts of prey,—they deem it a weakness to feel any concern about the disposal of their bodies after death. Yet even such persons, with all their professed indifference concerning themselves, do not fail to show a tender respect for the dust of their deceased friends. Like other men, they wish to have their remains suitably composed for the grave, and the spot of their interment marked by some commemorative memorial.

But *where* shall our bodies rest? Not in the crowded city or town, amid the haunts of traffic and pleasure and vice, where Gain will ere long disturb their repose and subject them to indignities; but in the country, under the open sky, and amid all the genial influences of nature. This has been the almost universal desire of mankind. In the earliest records of our race, we read that ABRAHAM bought a field and the cave which was therein, and all the trees that were in the field, for a permanent burial-place for himself and his descendants. The ancient Egyptians and Persians buried their dead in the country. The former had a public cemetery on the shores of the lake Acherusia. It was a large plain, surrounded by trees, and intersected by canals. The bodies of the dead were first embalmed, and then buried in the sand or in tombs cut out of the rocks. The custom of burning the remains of the dead, originated with the Greeks, from whom it was copied by the Romans. After the ceremony of cremation, the ashes were gathered into an urn, and the whole was carried in procession and interred by the side of the public roads without the city. Many of the gardens around Jerusalem were used as family burial-places. The early Christians interred their dead in caverns, probably to conceal them from the malice of their persecutors. The ancient Germans were wont to bury in groves consecrated by their priests. The Turks bury their dead amid groves of Cypress, which they style, very poetically, "cities of silence."

The rural cemetery, however, as we now see it, is of comparatively modern origin, and is the offspring, in no small degree, of modern refinement and a Christian civilization.

The connection of such burial-places with the public health, is a consideration not

to be overlooked. When a multitude of bodies are interred side by side, and, as is sometimes the case, one above another, it is impossible but that the surrounding air should be tainted with a noxious effluvia. The atmosphere of a church can hardly be wholesome, when the soil about it and beneath its floors is crowded with the decaying relics of the dead. It can not be healthful to visit such places often, nor to live in their immediate neighborhood. Much better is it to commit the remains of our dead to the fresh earth, where the pure winds blow, and amid flowers and verdure.

Rural cemeteries also exert an important influence on the public taste. When properly laid out, they present to the eye a pleasing landscape adorned with trees and shrubs and vines, with well-kept roads and walks, and tasteful monuments. All classes in society can obtain easy access to them, and can learn by their own inspection how beautiful is nature — how beautiful in her own simplicity, and also when her charms are heightened by the hand of art. That such places will be visited by large numbers, all experience shows. To say nothing of the multitudes who throng Père la Chaise, near Paris, and other cemeteries in Europe, we are told that the principal grounds of this kind in our own country are resorted to annually by thousands. Laurel Hill, near Philadelphia, was visited in one year (1848) by upwards of 30,000, and Greenwood and Mount Auburn by a still greater number. Nor do these thousands enter the gates of our cemeteries to no good purpose. They are moved, it may be insensibly, with pure and tender and lofty emotions, and they carry away with them finer tastes and higher conceptions. The works of art here beheld, unlike those seen in some public resorts, present nothing to inflame the passions or corrupt the heart.

And this suggests another advantage of rural cemeteries — their influence on the moral feelings. Can any good come from visiting the old-fashioned grave-yards, barbarously kept as many of them are? Who has not been shocked at seeing their rude hillocks, crowded together in dreary rows, perhaps grassless, or covered with rank weeds and briars, their head-stones tilted over at all angles, or broken and prostrate? Was any one ever made better by walking through a burying-ground used as a sheep-pasture, or left open to the street by a broken fence, or allowed to stand treeless and shrubless, exposed to the glaring sun and howling wind? Such sights sadden us, indeed; but they do not mend our hearts. They remind us that we must die; but they also make us dread to die — dread to think that our bodies must be put into the same festering earth, and be treated with the same neglect.

But why clothe death with such unnecessary terrors? It is sad enough to turn away from life and all we hold dear, without adding to the sadness by rendering the grave an object of disgust and dismay? Rather, let us make our burial-grounds pleasant and attractive; places where we shall be inclined to go often, to muse upon life and its grandest concerns, and upon death and the glorious rewards awaiting the good after death, — to reflect upon the virtues of those whose dust sleeps around us, and to consider how we may imitate those virtues. The spirit of Themistocles was fired by visiting the tombs of the illustrious dead. "The Romans buried their most honored citizens along the Appian Way, that the youth as they entered the city might be moved to emulate their virtues and share their renown." The early Christians worshipped near the graves of the martyrs, that they might be filled with their spirit. And so, may not we, while walking among the tombs of the good departed, catch something of their spirit and be filled with aspirations after a better life?

There should be nothing in the place or manner of their interment, to detract from our tender and respectful veneration for the dead. But this can hardly be avoided, if their graves are dug in a dismal and unsightly spot. How much better to choose some retired, sunny slope, the most beautiful in the region around us, and make it sacred as a burial-place forever. Here, let there be trees with their grateful and soul-subduing shade; there, let us see the open lawn and cheerful sunshine; around us, on every hand, let us behold the opening bud and springing seed, types of the resurrection; and in the distance, let there be, if possible, glimpses of blue hills, suggestive of the mountains where the departed walk.

But leaving these points, let us turn to some more practical aspects of this subject. In choosing a site for a rural cemetery, land moderately elevated and dry should be selected. If the soil is not naturally dry, it should be made so by thorough underdraining. It should be as near to the center of the population as it can be without exposing it to the liability of ever being encroached upon.

A proper site having been obtained, the grounds should be laid out by persons competent to the task. The usual committee or trustees having the charge of founding a cemetery, can not do such a work, nor can an ordinary land-surveyor, nor every "old-country gardener." Before a single stone is turned, an artist should be secured, if possible, who can appreciate all the capabilities of the place, and can use them to the highest advantage. He should be instructed to prepare a plan suited alike to the nature and situation of the place he has to work upon, and to the wants and means of those whom he serves; and then his plan should be faithfully carried out. But where a professional landscape gardener can not be obtained, let the matter be entrusted to a committee possessing reliable taste and judgment. They surely will not commit the folly of mapping off the ground into squares, like a checker-board, with straight roads and walks, and these bounded by stiff Balsam Firs at regular distances. On the contrary, they will lay out certain main roads, leading by easy curves to all parts of the cemetery, and from these, gravelled walks will lead to every grave. These roads will wind, not for the mere sake of winding, but because nature will indicate, here and there, that they should do so; as, for example, to avoid a tree, or hill, or rock, or pool of water. Moreover, a portion of the ground should be reserved, where the poor can buy lots at small expense, and where the friendless and the stranger can be suitably interred.

As to the trees suitable for such a cemetery, it is obvious that some variety should be sought for. Evergreens should form an important part; but were none others planted, a very sombre effect would be produced. Nor should the weeping varieties of deciduous trees predominate, as this would render the place gloomy, and give it a very unnatural appearance. There should be much of that variety which nature shows us on every hand, modified somewhat by the peculiar character of the place and the uses to which it is to be devoted. Trees planted in masses occupy too much ground. Heavy, round-topped trees, are less appropriate than those with conical, pointed heads. Pendent, drooping trees, are suitable for planting at intervals in all parts of the ground. Evergreens of every name are appropriate, intrinsically so, and because they have been associated from time immemorial with such places. For small lots in cemeteries, none are so suitable, in these cold latitudes, as the Norway and Hemlock Spruces, the Sibe-

rian Arbor Vitæ, and Red Cedar. Where the climate will admit of planting them, the various Junipers, Yews, and Arbor Vitæs, afford a wide selection.*

"The Cypress funerall;
The Laurel, meed of mighty conquerours
And poets sage; the Firn that weepeth still;
The Willow worne of forlorne paramours;
The Eugh obedient to the bender's will."

It seems to be generally conceded that flowers should have a place in the rural cemetery. They have a cheerful aspect, and are emblematical of our immortality. But a continual digging of the soil above the dead, suggests the unpleasant idea of maltreating their remains: it at least conflicts with the idea of their complete repose. Is there not more real beauty and grandeur in simply well-kept trees and grass and monuments, lighted up here and there with gleams of sunshine? If flowers are introduced, it should not be for a gaudy horticultural display, but as an expression of affectionate remembrance; and they should be few in number, and delicate in form, size, and color. A white Rose by the side of a tombstone, the Violet, and Daisy, and Myrtle, are always appropriate and pleasing.

On the subject of monuments and their inscriptions, we will presume to offer only a few suggestions. A very common and unpleasant feature of our ordinary grave-yards is that of monuments leaning over and falling to the ground. The only way to keep grave-stones erect, in our climate, is to imbed them in solid mason-work laid below frost; or, better still, on stone piers built up from the bottom of the grave. The most durable monuments are those composed of the fewest blocks of stone, thus exposing only a small number of joints to the action of the weather. Care should be taken, also, that the stones have no cracks or seams or visible defects of any kind. As to the material best adapted for monumental purposes, the writer will not undertake to give an opinion. The best marbles of this country are perishable; and even the finest of the Italian, which in Southern Europe stand unharmed for centuries, under our harsher skies soon corrode. Granite, sienite, and some other of the older and harder rocks, are very durable; and for plain, massive monuments, are quite appropriate. Experiments which have been tried with the red sandstone of New Jersey, seem to indicate that it will prove to be one of the best stones for monuments that can be used in this country.†

As to the character and style of monuments, it would be presumptuous to lay down any universal and invariable rule. What would be suitable for a king, or an eminent statesman, or a great public benefactor, would not, probably, be suitable for a private citizen, whether he were rich or poor. A huge monument piled to the sky, and bedecked with ornaments, simply because the occupant of the grave beneath it, or his friends, had money enough to build it, is vulgar in the extreme. Monuments which are miniatures of certain ancient and famous structures, are also objectionable; for, what looked well on a foreign shore, and when built of lofty height and corresponding proportions, often appears ridiculous when reduced to a few feet, and imperfectly cut and balanced. When a work of this kind is attempted, it should be entrusted only to the most skillful hands. Objections may be urged against altars, and tablets placed

* See an editorial on this subject, in the *Horticulturist* for April, 1854.
† See a paper on the subject of "Monuments," published by the Greenwood Cemetery Association.

horizontally, that their inscriptions are liable to become defaced, and that they soon lose their horizontal position, and that they seem to lie heavily on the breast of the dead, and to confine and shut them away from us. This last, however, is a matter of mere feeling and taste, and may not prevail with all minds. The broken column and the reversed torch deserve also a passing criticism. These certainly are beautiful symbols, as might have been expected from the country of their origin, Greece. But are they appropriate for us? Greece had no Bible, and knew almost nothing of the resurrection nor of the Christian's heaven, and might well represent death with such gloomy devices. But when a good man dies, we do not consider the column shattered, nor the lamp of life extinct. The column ends just where the ALL-WISE ARCHITECT saw it most fitting to terminate it; and the lamp still burns, only with a brighter flame. It has been happily said that, "Those who will use the gloomy hieroglyphics of a perished creed, should at least place near them the cheering emblems of a religious faith. If Death be represented with downcast look and inverted flame, let Immortality, as in the fine group of THORWALDSEN, stand by his side with torch high blazing, and eyes upturned in love and rapture." But whatever style of monument be chosen,—obelisk, pyramid, urn, cross, column, slab, or anything else,—let it be characterized by simplicity. Ostentation is nowhere more disgusting than in a burial-place. We walk past the huge sepulchral stone of the merely rich man, with the trifling exclamation: "How much this cost! What vain man lies here?" But when we come to the little hillock which covers the remains of a child, though it have no headstone, our tenderest respect and sympathy are at once excited. Nothing seems more beautiful than that lowly mound and the Violets upon it, watered perhaps by a mother's tears.

In regard to this whole subject of monuments, the best general rule that we remember to have met with is this: "*A monument should betray no desire to exhibit great costliness, and no endeavor to avoid a reasonable expense.*"

It is perhaps impossible, now, to change the prevalent custom of inclosing cemetery lots with hedges, chains, and fences; but, obviously, they are not needed to protect monuments from injury by man or beast; for, any one desirous of marring them, can do so, in spite of such inclosures, and cattle are never allowed to range in a well-ordered cemetery. Why not indicate the boundaries of lots by small granite posts at the corners, a few inches above the ground, or by a slight elevation of the sod above the surrounding soil? Why not avoid whatever has the appearance of exclusiveness and pride, in the place of graves, and let the prevailing spirit and expression of the spot be that all who slumber there are brethren of one common family?

It is a pleasing sign of the times that so much attention is now being paid, in all parts of the country, to the founding of rural cemeteries. It is an honor to the character and tastes of the people. We are not, then, wholly engrossed in the worship of Mammon, forgetful of the amenities and tender charities of life. Let us encourage, more and more, every movement which looks to the promotion of true social culture and happiness. Let us seek to make our homes more comely and attractive; and, since we are all appointed to die, let us smooth the passage to the grave by the comforts of religion, by tender respect for the dead, and by beautifying their last resting-place.

Editor's Table.

Weather, Crops, &c.—The spring opened unusually late over a great portion of the country. At Rochester the ground remained frozen till about the 3d or 4th of April; and in some parts of Western New York, much later. Snow banks were still seen on the 1st of May. In the early part of April the weather became very suddenly warm, almost a mid-summer heat. This was experienced very generally. It seemed as though we were to be at once transferred from the frozen regions of the north to the neighborhood of the equator. For a time people were quite alarmed lest their planting season should be cut short and their various improvements be frustrated; but a gladdening change came towards the close of April, and from that time to the present, (May 22d), the weather has been cool and vegetation has come forward at a moderate and healthy pace. The change in Western New York was accompanied with a hail storm which threatened to be teriffic, but did no very serious injury. We never beheld such black and angry clouds; between three and four o'clock in the afternoon we had to light candles so see to read or write; hail stones fell in some places four inches in circumference; windows were smashed and poultry killed; but it lasted only a few minutes. Since that gust the weather has been cool, with frequent rains with occasional light frosts that have not done any harm. At this moment the country looks very beautiful and full of promise. Never have we seen it, at this season, look better in any respect, excepting Peaches. Apples, Pears, Plums, Cherries, and all the small fruits, promise the most abundant crops that we have had in many years. The drouth of last season, by checking the formation of wood, has brought even very young tardy bearing sorts into a fruitful condition. The old Peach trees in this State are *dead*. We travelled, a day or two ago, through the best Peach district in Western New York, and found thousands of trees rooted up and prepared for the fire. Young trees, as we predicted in a late number of this journal, are likely to survive; but the disaster is a very serious one. We know of single orchardists who have lost thousands of fine full grown bearing trees. We have not yet had leisure enough to prepare an account of the injuries done to many ornamental trees and plants usually considered hardy. We subjoin a few notes from correspondents.

Col. Wilder adds the following postscript to a letter dated May 18th:

"The prospect for fruit is good, with the exception of Peaches. Our Pears are now coming into bloom and look finely. Among the new sorts I notice *Emile d' Heyst, Calebasse Fongard, Pius IX, Sur Reine, Beurre Wetteren, Alex. Bivort, Madame Durieux, Vineuse d' Esperin, Monsiegneur Affre, Alexandre Dutilleul, &c., &c.*"

Mr. Chorlton writes from Staten Island May 10th:

"The last severe winter has not left us unscathed. Now that Peaches are beginning to grow, many of the branches are gummy from patches of injured bark. The hardy Roses of all kinds are more or less cut on the ends of the shoots; this, however, will do no injury. Paulownia flowers are quite dead, but the trees uninjured. A Cedar of Lebanon here is almost killed,

while the Deodora is not so much as touched, and both are in the same situation. Our fruit trees generally are now in fine bloom, and to all appearance there is great promise of a plentiful harvest."

"Prospects for all kinds of fruit are most promising. Everything, more especially Cherries, is profusely lined with flowers. Peaches never bloomed more beautiful. The clear and fine weather was in favor for all trees efflorescent. JACOB COCKLIN.—*Cumberland Co., Pa.*"

"This morning (May 9th) closes one of the most terrible storms ever witnessed here since the 13th of May, 1834. Everything like leaf or blossom was frozen perfectly stiff, and yet the fruit has escaped, owing to the dense cloudiness and gradual thawing. Some Peach buds have fallen off, but some will be left. In some instances Peach trees are full of blossoms here. Snow fell about eight inches and lay about two inches, taking leave at nine o'clock this morning. From my experience in meteorological observations, I anticipate no more injurious frosts. O. T. H.—*Randolph, Pa.*"

"'M,' of Trenton Falls, states that 'fruit is entirely cut off here;' by which it might be inferred that *all* the fruit in Oneida county was cut off. Whatever the case may be on the north side of the Mohawk, it is by no means true as to the south side of the valley. As far as I can judge from the backward state of the blossom buds, fruit in this county bids fair to be more than an average crop. The Pear trees, in particular, promise an abundance. Young trees only five years from the nursery are literally covered with blossoms, and will, unless blasted by frost after this date, (May 13th), set the the fruit so prolific that it will be necessary to thin them out in order to get fair sized and perfect fruit. The Apple promises equally as well, on the south side of the valley; and we are flattering ourselves that we shall be able to furnish a fair share of this fruit for the eastern market, as usual. Grape vines of the hardy kinds, such as the *Isabella*, and those equally hardy, do not seem to be injured in the least. Mine were not taken down from the trellis, yet they are at this date bursting the buds all over the vine. The wood of the Grape vine ripened well last fall, which probably accounts for the flourishing state they are in this spring. If any parts were killed, the winter pruning in February cut them clear, so that none of any consequence show this spring. I am inclined to think that all kinds of fruit cultivated in the open air will be found, in this county, to have gone through the winter with as little injury as in any former year. H. R. HART.—*Whitestown, Oneida Co., N. Y.*"

This is good news from Oneida.

WHAT THE GOVERNMENT IS DOING.—It cannot any longer be said that our Government is indifferent to the progress of fruit culture and arboriculture. Great quantities of Prune scions (it is not said what sort) have been imported and are to be distributed in such parts of the country as the Curculio does not visit, for the purpose of encouraging the culture of that fruit on a scale sufficiently extensive to supply home consumption. An excellent idea; let us have plenty of Prunes.

Then again, we are to grow our own Cork. The *Washington Union* says that a hogshead of acorns of the Cork Oak (*Quercus suber*) have been imported from the south of Europe and distributed in the Middle and Southern States for experiment.

One thing we should like to know in regard to this matter, and that is, who has suggested and conducted these national enterprizes. We hope the head of the National Agricultural Society will be consulted hereafter, for the Government has done some very foolish things on this subject of distributing seeds, and always will do so until some capable person directs it. We have seen bundles of perfect trash sent out, year after year, as novelties, from the Patent Office. If our Government really desires to encourage experiments in this way, it

should at once found a national experimental farm and garden, and place them in charge of men competent to direct and manage them in such a way as to be not only useful but creditable to the country. Until this is done, the people should protest against money being foolishly squandered, as it has been for a number of years. Why will not the agricultural press take up this matter and agitate it thoroughly. We clip the following items from Washington papers:

"THE CORK TREE.—About a hogshead of acorns of the Cork Oak have been introduced from the south of Europe and distributed in the Middle and Southern States for experiment, or to test their adaptation to the climate. This tree, in its native country, where it is an evergreen, usually grows to a height of twenty or thirty feet: but in England there are specimens which exceed fifty feet in height, with a diameter of more than three feet. The substance familiarly known to us as Cork, is the epidermis or outer bark, and sometimes grows two or three inches thick. Should the experiment succeed, it will be a subject of great national importance that plantations should be established in various parts of the country for the purpose of growing this useful substance, particularly in the event of a war between this country and Europe, in consequence of which the supply would be cut off."

The *National Intelligencer*, reasoning upon the above paragraph in the *Washington Union*, arrives at the following conclusion:

"The Government is sensible how great an inconvenience it would be to the country to have its supply of Corks cut off by a foreign war. Spain is the country from which we are chiefly supplied, and as Spain is the country with which we are most likely to be involved, it is proper, as well on the general principle of national independence as for the particular emergency, that we should be rendered independent of importation by naturalizing the tree in our own country; and thus this large judicious importation of the Cork tree acorns. Further—the Cork Oak (*Quercus suber*) does not attain its growth, so as to mature its cortex, in less than forty or fifty years; and we argue, therefore, that, as the Government is providing by the planting of the tree for the interruption which a Spanish war will cause in our supply of Corks, the President does not expect war to ensue much before our exotic trees shall come to maturity—namely, fifty years."

NEW OIL PLANT.—This small tree (*Castiglionia lobata*), known in Peru under the name of *Pinoncello*, and cultivated about Sureo, Huacho, and Sambageque, also growing wild in great abundance in those regions, it has been ascertained yields a valuable oil well adapted to the purposes of illumination. Its bean-like fruit, or seeds, when roasted, have an agreeable flavor, preferable to that of the Olive. When eaten raw, the etherial oil generated between the kernel and the outer skin is a strong cathartic, the effects of which can only be counteracted by drinking cold water. It has been ascertained that the seeds will grow in Baltimore; and, doubtless plantations of this tree might be formed in many parts of the South, from which vast quantities of oil might be produced, and thus add another link to the great chain of our national wealth. We understand that the Patent Office has taken measures to procure some of the seeds of this tree for trial in the South and Southwest.—*Washington Union, May 10th.*

AGRICULTURAL DIVISION OF THE PATENT OFFICE—CUTTINGS OF THE PRUNE.—There have recently been imported from France the cuttings of several varieties of the Prune, which have been distributed in Maine, New Hampshire, Vermont, Northern New York, Michigan, Wisconsin, Minnesota, and several points on the Alleghany mountains, to be engrafted on the common Plum tree. Why these places have been selected, is in consequence of the absence of, or comparatively few, Curculios in these regions. In most other parts of the United States, this insect is a great bane to the Plum trees, and often cuts off the entire crop. From the coolness of the climate in Maine, and almost entire absence of this insect, it is the opinion of good judges that this State is capable of producing a sufficient quantity of Prunes for the whole consumption of the Union.

Potato Seed.—A quantity of Potato seed has lately been procured, by the Agricultural branch of the Patent Office, from Germany, with the view of experimenting in the United States with different varieties of this so important agricultural staple.

A curious fact, not generally known, connected with the production of Potatoes from seed balls is, that no two stems will possess precisely the same qualities, yet many of the tubers will appear so much alike that when mixed together they cannot be distinguished by the eye, though it may happen that one variety will be four times as prolific as the other, or may be much better in other respects. The tubers raised from the seeds of the same ball are prodigiously diversified in regard to color, being pink, black, red, white, green, yellow, &c.; and as to shape, are round-nobbed and varied in all proportions; as to size, some of them being no larger the first year than Peas, while others exceed the size of a pullet's egg; as to earliness, some of them completing their growth in July, while others will not put forth their blossoms till October; as to productiveness, some yield more than two hundred to one, while others will give only three or four-fold; as to spreading under the ground, some running out to a great distance, others growing quite near to the stem, some descending quite deep into the earth, while others will rise to the surface; as to quality, some will be tough and watery, some dry and mealy, some very pleasing to the taste, while others will not be palatable; as to the stems, some will carry a single rod, others an immense profusion of them, some being very luxurious, while others will be dwarfish. In short, as is very remarkable, no sort of connection will be found to exist between any of the peculiarities of the two specimens.—*Washington Star.*

There have been received at the Patent Office a quantity of the Cassabar Melon seeds, seven years old, procured from Persia by the United States Dragoman at Constantinople. These Melons, it will be recollected, are of a very sweet and delicious flavor, very wholesome and nutritious, and are so simple in their character that they may be eaten by invalids with impunity. Those who receive the seeds for cultivation, should bear in mind that if planted in the vicinity of any of the Melon, Pumpkin, Cucumber, or any of the gourd-bearing plants, they are liable to be hybridized or mixed, which will change the character of the seeds and destroy the purity of the variety; consequently they should be planted in an isolated position when influenced in the manner indicated above.

Grass for Lawns.—We observe in the grounds in front of the Patent Office, a very vigorous growth of beautiful Lawn Grass, the seeds of which were selected by the agent of the office, in London, some months ago, and sown a few weeks since. As heretofore there had been repeated failures, it was a matter of doubt whether seed suitable for Lawn Grass in this region, could be obtained; but this case at the Patent Office places it beyond question. We give this as an instance of the skillful and intelligent manner in which the office is conducted, which ought to remove any prejudices which may exist in reference to the failures which have been imputed to the seeds distributed from that source.—*Washington Union.*

The Agricultural division of the Patent Office has introduced from France the cuttings of the Zante Currant—a variety of small Grape—which have been distributed in the Middle and Western States. This variety of fruit, so well known as entering into the composition of some parts of domestic cookery, should it succeed will add to the numerous varieties of choice fruit which have been introduced within the last few years into our country.

Green Peas from Charleston.—The steamship *Southerner*, Capt. Foster, has arrived at this port from Charleston. Among her freight, which consisted principally of Cotton and Rice, were one hundred barrels of Green Peas, consigned to fruit dealers in New York. The price of Peas at Charleston is $5.50 per barrel, while they are sold here at from $7 to $8 per bushel. New Potatoes will probably be brought from Charleston in two or three weeks.—*New York paper.*

AMERICAN PLATE GLASS MANUFACTORY.—We are happy to learn, as we do from the following notice which appeared in the *N. Y. Courier & Enquirer* of the 12th ult., that the manufacturing of Plate Glass has been commenced in this country with fair prospects of success. As soon as it can be had at reasonable prices, we have no doubt but that it will be used largely, in a rough state, in the construction of horticultural buildings. It is a matter of no little importance to all branches of architecture, and we shall watch its progress with interest.

"TRIUMPH OF PEACE,—It is pleasant in these days—when men read and talk so largely of armies and fleets, sieges and bombardments, sorties and repulses, trenches and parallels—it is pleasant, we say, to record a peaceful triumph of American skill and industry, which is destined to do much to promote the manufacturing interests of the country. One of the few appliances of taste and luxury for which we have been entirely dependent upon foreign production has been Plate Glass. For this article we have paid tribute to the manufacturers of France, England, and Germany, to the amount of many millions of dollars, and every attempt to establish the manufacture in the United States has hitherto resulted in disappointment and loss. The more than French taste of our people for display in mirrors and huge window fronts, which has been so largely developed within the last few years, has offered a rich prize to the Company that should succeed in accomplishing the manufacture of an American article which would compete in quality and price with that imported.

"The *American Plate Glass Company* have achieved success, and on Thursday, in the presence of a large number of gentlemen who take an interest in every progressive step of American mechanical skill, several plates of glass three-eighths of an inch in thickness, and measuring sixty by one hundred and twenty inches on the surface, were cast. The establishment is situated at the foot of North Sixth street, Williamsburgh, and occupies a building of brick two hundred feet by one hundred feet square, the whole being covered by an iron roof. Here are fabricated from the raw material the fire-brick, melting-pots, and furnaces. The capacious annealing ovens or kilns, the huge casting tables, and cranes, railways, moveable tables and carriages occupy the immense area. The process of manufacture may be briefly described, thus:

"The melting-pots, of a capacity to hold six hundred pounds of material, are made of fire-clay prepared in a peculiar manner and placed in the furnace, and when sufficiently hot are filled with the alkali and silex, and the doors closed upon them. In ten or twelve hours the mass is ready for casting. Near the furnace is an iron table a little more than five feet by ten, under which a slow fire is placed so that it is moderately heated. At the head of the table is an iron roller some two feet in diameter, and near that a swinging crane. The surface of the table is flush, but upon its edges are placed bars of iron corresponding in thickness to the thickness it is desired to cast the plate. These bars serve as bearers for the roller. The material being ready, the first step is to remove the furnace door, which is accomplished by means of long levers and tongs. By similar means a pot is extracted from the furnace and placed on a carriage or truck. From the outside of the vessel all adhering substances from the coal is scraped off, and the surface of the matter is also skimmed by ladles of all impurities. A collar, with two long handles, is then lowered by the crane, and encloses the pot just under the projections or shoulders upon it, and by a windlass, it is raised some six feet and swung directly over the table. The projecting handles are then seized by two men, and in a moment the six hundred pounds of melted glass flows like a sea of lava over the iron surface. Two other men instantly send this ponderous roller on its way from the head of the table, reducing the mass to the thickness of which the iron bearers are the guage. In fifty seconds the mass is sufficiently solidified to permit it to be pushed rapidly upon a table having a wooden surface, resting upon rollers, which is at once pushed blazing and smoking to the mouth of a kiln, into which the glass is passed, there to remain from three to five days, when it emerges, annealed and ready to be trimmed. The edges, even if the glass be an

inch thick, are smoothly cut by a diamond, and then it is ready for market in a state known as 'rough plate glass.' The whole process of casting is not only interesting but exciting. The men are drilled to move promptly and silently, handling their implements with great adroitness. The process described does not occupy more than four to five minutes, and everything is immediately ready for another casting.

"The company do not as yet polish their glass to fit it for windows or mirrors, but are about to introduce the machinery necessary for that purpose. At present there is sufficient demand for the rough plate, to be used in floors, roofs, decks, &c., to keep their Works constantly employed. They can produce plates two inches in thickness, and one hundred and twenty by two hundred and forty inches square, a new table weighing thirty-two tons being in readiness for castings of the latter dimensions. It is believed that plate glass of great thickness, at a low price, will be introduced for many purposes for which iron and stone have hitherto been used.

"The duty on imported glass is thirty per cent.; but so bulky and fragile is the article that the duty, expenses, and breakage, amount to near ninety per cent. The fact that the company own a water front, and can ship directly from their works, is an important consideration in avoiding loss from breakage, affording at the same time advantages for receiving fuel, sand, and other material, direct.

"The construction of the works commenced on the 1st of February, and the first casting was made about the 1st of May, giving proof of a well digested plan and vigorous execution. The works are at present capable of producing seven hundred feet of three-eighths inch glass per day. The furnace holds twelve pots, and there are twelve annealing kilns, each forty by eighteen feet. The fires, kept up by Cumberland coal, are not allowed to go down until the furnaces are destroyed, which generally occurs after a year's use. The pots after a casting are at once returned to the furnace and re-filled; they usually last a month. The temperature of the establishment is decidedly high, above the top of ordinary thermometers. The furnace fires are watched, as is a solar eclipse, through dark colored glass, the intensity of the light being unendurable to the naked eye. The appearance of the 'sea of glass' when poured over the table is extremely beautiful. At first of bright whiteness dazzling to the eye, it rapidly changes to pink, scarlet, crimson, and a dark murky red, streaked with black, in which state it is thrust into the kiln.

"It would be unjust in alluding to previous attempts to manufacture plate glass, not to mention the Cheshire Company, whose success was comparative, but whose failure was positive. Under grave difficulties they did produce some plate glass, but ultimately abandoned the scheme, submitting to a loss of nearly two hundred thousand dollars."

Parks in the Cities of New York—The Great Central Park.—When the time shall come that enterprising men on the Desert shall enclose one of the Oases for a pleasure ground, there will be a propriety in designating it as —Mungo Park. Before adventure and enterprise shall have gone thus far, the labors of our Commissioners will have been completed, and this city will possess a Park, one that will realize all that its friends have uttered in favor of the project, and one at which howsoever heartily this generation may scold, the New York of the next century will prize beyond any other remembrance of our day. The eminent and honorable gentlemen who are now engaged in the labor of averaging the titles and conveyances necessary for adjustment, before the people shall possess their own, are of those whose highest object it is to do that important work so well that their names shall be identified with its complete success. Gov. Bradish, to whom all the pleasure grounds of European cities are familiar, means that this emerald, in rock-setting, shall be worthy of admiration even from those to whom the great Parks of London and Vienna are familiar.

And strange it is, that only in New York, in the great Metropolis, where land has value, so that a ward could almost be suitable barter for a western State sovereignty as it is, only in this

costly latitude has there been any effort to form a Park. It is a truth which is sadly proved by looking over our sister cities. Brooklyn is not enumerated, because that is so soon to be a section of New York as to be included in it; and even Brooklyn, or its latest annexation, Williamsburgh, has but scanty thought of furnishing the future. There was commotion enough made concerning Washington Park, in its inception, to frighten from further effort for a century. The dead in Brooklyn offer amid their marble record the scenes that sooth even while they sadden.

Albany took a clay hill, tough, dark, blue clay, and by coaxing the State, which in those days was as penurious as upon similar requests it would now be princely, and by teazing the owners of adjacent lots, who were incredulous as to future value—by all this, by bringing soil thither, sand and loam, even as the earth was brought to the vineyards of METTERNICH, in panniers on the backs of men and women,—in this way, what are called the Capitol Park and the Academy Park have been formed.

Admirable success has attended the effort at foliage, and in mid-summer even the Capitol itself is secluded behind the luxuriant trees. No Park work has been done under greater disadvantages, for a more bleak plain of clay than was this in the commencement, could not be found. It was the favorite place for the summary hangings of Collonial and Revolutionary days. Political strangulation now takes place within the walls of the Capitol.

But in truth, Albany has no Park, for the whole area of its open grounds would not be thought excessive for the lawn of a gentleman's country house; nor is its energetic neighbor, Troy, more favored.

And as for Schenectady, unless the domain of Dr. NOTT be so designated, it has nothing but its streets—one or two of them rural and quiet enough for a meditative man's musings. There is, it is true, a noble promenade near the College, and beneath the grove adjacent I have heard, while a superb sunset was kindling the western sky with peculiar splendor, the words of eloquence from WRIGHT, and DOANE, and POTTER, and SPENCER, such as Oxford might have aroused itself to hear.

Has Utica a Park? It has fine broad avenues, and there is space and verge enough for the pure rushing of the life-breathing winds; but since the day of Fort Schuyler even until now, when so many prosperous thousands gather around the old Fort's site, I cannot find that there have been spared from the builder any extent of pleasure grounds.

And it is even thus of Auburn—more excusable here, however, as so much of pleasant gardens surround these pleasant homes, so that in visiting the elegant dwellings of Governor SEWARD, and Mr. CHRISTOPHER MORGAN, and others, the transition is easy from the ornament of the house to the luxuriance of the field.

Rochester has near to it its Cemetery with such admirable judgment placed in such ease of approach as that it may find the step of the wanderer easy of access, even from the town's busy centre—and here there is beauty of rural form, and space abundant; but yet it is among the tombs. In and about its dwellings of the living, Rochester has reserved but little, if any, of open area.

That City of Inland Seas—Buffalo—most like New York in all its commercial movements, has been so accustomed to consider every foot of ground precious, that it has forgotten that there is a time to breath and rest, as well as to labor. It has noble opportunity for pleasure ground and Park upon the water side, so that the whole panorama of the lake and its commerce would be in view. Nor is it yet too late for such good work to be done, and taste and opulence and enterprise are finding permanent home in this great Western City.

London has held its great Parks since the days of that termagant old king—HARRY the VIII—a monarch who scolded out more good than other sovereigns now by persuasion. When Hyde belonged to the Abbot of St. Peter, it may have rejoiced the demure dwellers of his monastery at Westminster, but it did not promise much for the people. It was fortunate for the citizens of the World's Metropolis that this Eighth HARRY was not so intently occupied with brief love

and quicker anger of the KATHERINES, but that he liked the chase of partridge, and pheasant, and heron, so well, that he preserved for his hunt, the Parks.

A simple taste, and a less royal lineage, must secure our own great Park. It shall be the gift of this century of New Yorkers to the next, for it will be by the long and slow, but inevitable process of many years, that hill-side, and vale, and plain, and terrace, and mound, shall be shadowed by the huge and brave trees. When it shall have been declared officially, the Park, then comes its severe trial, for then shall issue out upon it all manner of experimenters and essayists in landscape.

I have already heard it declared that there must be a general leveling of all the rocks! Doubtless the crags must be crushed, afterwards to be rebuilt, as did our romantic neighbor of the Bowling Green, in piles of very ludicrous shelvings. Perhaps there may be good sense to save this great area of surface from invasions of men, who, not being able to see what is really beautiful, go to work to create it. Let not our new Park be included among the *spoils*.

With due humility towards our associate, venturing on a field he has won so well, I would ask our Honorable Commissioners BRADISH, KENT, and their worthy associates, to let us remember them as ANTHONY uttered of CÆSAR:

"—— all his walks,
His private arbors, and new planted orchards,
On that side Tiber, he hath left them you
And to your heirs forever, common pleasures
To walk abroad and recreate yourselves."

—SENTINEL, *in N. Y. Courier & Enquirer, May* 12.

THE DIELYTRA SPECTABILIS.—This charming plant is now (May 20th) in full bloom here in the open ground. Young plants—last spring's cuttings—have come through the winter safe, without the slightest protection of any kind. We can safely say that it is *perfectly hardy*. In a note just received from CHAS. DOWNING, Esq., he says:

"*Dielytra spectabilis* proves to be one of the hardiest plants. While many other hardy plants have scarcely survived, this has not been injured in the least. It is now in full bloom and makes a splendid show."

We have been thanked over and over again for bringing this plant to notice through the *Horticulturist*. We give the following letter entire:

THE DIELYTRA SPECTABILIS.—The *Dielytra spectabilis* figured in the *Horticulturist* last year, induced me to send for a plant immediately, as your recommendation was given it. On the way, or in unpacking it, it became so much broken—top and roots, pot and all—that I despaired keeping it alive. But with care in the green-house, it was brought out again, and about the first of August it was planted in rich soil in the garden. It grew finely, but did not bloom, last summer. Without protection, it was among the very first things to make its appearance this spring, and now it is in bloom. The plant is about two feet high, and about the same in diameter—the admiration of every one who beholds it. I could sell dozens of plants, at almost any price, if I had them; but there is but that one on hand and *that* can't be bought. Fifty cents was what it cost, but ten dollars would not even take it on loan for a week. There is no getting tired of looking at it, no matter whether coming to meals or going from them. Coming home from abroad, or going to the nursery, the *Dielytra* must be looked at. No wonder you gave it such a flowery description in the *Horticulturist*.

But to wind up, I would merely say to whoever has not got it, go and get it. Until you have seen the *Dielytra spectabilis* in bloom, you have yet to see, for the first time, one of the most superb flowers under cultivation. For description see page 300, in the *Horticulturist* of 1854.

The spring is unusually late with us. The Cherry is only now in full blossom—one month later than some years. The thermometer is down to 44° —9 o'clock P. M. The prospect for fruit the coming season is yet quite cheering with us; but a late frost may blast all our hopes of eating Cherries, Apricots, Plums, Peaches, &c. SAMUEL MILLER.—*Calmdale, near Lebanon, Lebanon Co., Pa., May* 9, 1855.

EFFECTS OF COLD.—In this region we raise Peaches about two years in five; the rest of the time our buds are killed by the extreme cold in the winter. In the year 1827 I became convinced that the common opinion was incorrect, that the fruit-buds were killed in the spring by having cold weather after some warm days had swelled the buds. The first snow that winter fell the 1st of January, nearly one and half feet, and ended with a gale from the nothwest which drifted the snow very much. During the winter we had a snow-storm almost every week, and then a drift; so that by mid-winter the fences were covered. My father had a small nursery of Peach trees which were seven or eight feet high and branched within two feet of the ground. These were covered five or six feet with snow till March. An uncle of mine, in this city, had some bearing Peach trees that branched within three feet of the ground, so that some of the branches were covered with snow all winter. In the spring the tops of all these trees that were exposed were killed; and below the snow, sound blossom-buds and wood, so that both nursery and other trees bore fruit. I did not keep a thermometer then, so that I cannot tell how cold it was; but the newspapers said it was many degrees below zero.

In the fall of 1829 I began to keep a record of the thermometer three times a day, and found that when it was 10° or more below zero our Peach fruit-buds were killed. If the thermometer was only three or four below zero, early in December, it caused more injury than five or six degrees lower would in January or February. I also found that sudden thawing was a great evil. As a general rule, the mornings after our coldest nights are clear, with a bright sun, till about ten o'clock, when it clouds over for the rest of the day. I observed that trees which were protected by some building from the morning sun, till after ten o'clock, saved some fruit-buds even in our coldest winters, when on exposed trees all were killed. I saw an example of this four or five years ago at the Shaker village nine miles east of us. One of the families had a fine Peach orchard loaded with fruit in August, and was situated on the west side of a knoll that protected it from the morning sun. Our buds about the city had been killed the previous winter.

In the fall, some eight or nine years ago, I tied a bundle of straw around an Apricot tree and a Nectarine that had born one or two seasons, in the same way you protect Rose bushes and other tender things. They were seven or eight feet high. In the spring, when uncovered, they were sound in wood and bud and bore fruit, while older Peach trees in the same garden, which had been exposed all winter, bore no fruit, the buds having been killed.

As to the protection of snow.—A few years ago, in November, I shortened the young wood of my Peach trees and left the trimmings under the trees. In the winter, when the ground was covered with three or four inches of snow, we had the thermometer low enough below zero to kill the Peach buds. A few days after the snow melted away, and on examining the fruit-buds on the trimmings that had been covered by snow, I found them all sound. Several years ago a Scotchman told that his brother, who was gardener to Mr. BURDEN, of Troy, one fall laid down some young Peach trees, that were ready to bear, by cutting off the roots on one side so that he could bend them to the ground; he then covered them with some Pine boughs, and in the winter they were covered with snow. In the spring he righted them up, and they blossomed and bore fruit, while other Peach trees near them, which had been exposed, bore none.

Since I have kept a record our Plum-buds have been killed twice, and the Cherry once. About four miles below this city there is a rapid, of a mile or more, in the Mohawk, which does not freeze once in twenty years. The banks are a hundred feet or more above the river. A friend, who lives there, raises more or less Peaches every year, as the warmth given out from the

river makes it ten degrees warmer than with us in the city. East of us the ground rizes gradually for three miles and then descends towards Troy. On that ridge they raise Peaches almost every year. A farmer who lives there told me, lately, that he has a tree that has borne every year for the last twenty years, and last year bore two bushels. Some of its fruit-buds have survived the past winter.

The fall of 1835 was very mild, and, before the ground was frozen, eight inches of snow fell on the 23d of November; immediately the winter set in, and on the 3d of December the thermometer was four degrees below zero; on the 16th, fourteen below in the morning, ten below in the middle of the day, and fifteen below at nine in the evening. The 9th of January, 1836, more than two feet of snow fell; on the 25th, two and a half feet. During the month the thermometer was six times below zero—three times, fifteen below. In February it was nine times below zero—the lowest, eighteen and nineteen. A great deal of snow fell, so that it was five or six feet on a level. In March it was four times below—the lowest, five, on the 9th. The ground being deeply covered with snow, and no frost in it, the trees were not prepared for the severe cold, and our Peach trees were killed. Three out of five Quince trees in our garden were killed; the other two were killed to the ground, but sprouted again and have borne fruit to this time.

As to the past winter, the thermometer was two below zero the 19th of December; twelve below, the 20th; at zero, the 21st; five below, the 22d; and ten below, the 23d. In the outskirts of the city, it was three or four degrees lower. I examined the trees a few days after and found the Peach fruit-buds all killed, and two-thirds of the Apricots. The few Apricot buds that escaped are swelled out and beginning to open. Their impunity is owing to their being protected by buildings from the morning sun; they are young, being only five feet high. The wood of our Peach and Apricot trees is sound to the very ends of the branches. Our Plum buds are safe; so are the Cherries, except a few on the *Elton*. The 5th of February the thermometer was two below zero; on the 6th, twelve below; on the 17th, seventeen below—at College Hill, twenty-two below. The past winter the ground was frozen from three to four feet. My friend, who lives near the rapid spoken of before, has just told me that his Peach buds are nearly all alive. Our Pear trees are safe. Charles H. Tomlinson.—*Schenectady, N. Y*

Magnolia conspicua.—In looking over Mr. Prince's new catalogue, he says: "The above *Magnolia conspicuas* are grown from seed, seven years old, well branched, very vigorous, and perfectly hardy, and are splendid specimens. They are the only ones of this character ever offered for sale—all others being *grafted* and *weakly*."

As an offset to grafted or budded trees being weakly, I send you an account of my tree, which is six years growth from the bud. It measures over sixteen feet high from the ground; width of branches, eleven feet in diameter, which commence at twenty inches from the ground, and it has on now (May 4th) nine hundred and eighty perfect blossoms and is a beautiful sight. If Mr. Prince, or any other person, can show as large and perfect a specimen grown from seed in six years, or even twelve, I hope they will give some notice of it. My experience is, that *Magnolia conspicua* and *Solangeana* grow twice as fast budded on *M. acuminata* stock as they do from seed, and nurserymen would find it to their advantage to propagate them in this manner. These Chinese Magnolias are yet scarce and in demand, and will find ready sale at good prices for many years to come. Chas. Downing.—*Newburgh N. Y*

Mowing Machines for Lawns.—Your Hartford subscriber must be mistaken in Shanks & Sons address. I have seen the mowing machines used in small places where there were no regular gardeners, to mow short grass. I think Shanks & Sons advertised them some years since in Arbroath, Scotland—not New Brunswick. A Nurseryman.—*Mt. Pleasant, C. W.*

Raising Norway Spruce from Seed.—Having been a reader of your journal for some time, and often had a desire to pass a remark on many of your practical observations, has induced me to do so at this time.

I perceive in the April number of the *Horticulturist* your directions to "A Subscriber" how to raise "Norway Spruce from seed." I would therefore beg to differ a little from your method. In the extensive seedling nurseries of Scotland, where they are very successful, their system is, previous to sowing, should the weather incline to be dry, (such as we have in this climate), they generally immerse the bags of seed in shallow ponds of water (with a stone to keep the bags under) for eight or ten days; it is then turned out of the bags. on a deal floor, in a cool, temperate place, for forty-eight hours, to dry gradually.

In preparing the ground there is a great deal of nicety and judgment required. The ground should be well under-drained and well thrown up roughly with the spade, the fall previous, in such a manner as to catch the frost to pulverize so as it may crumble down when the spade and rake enters again at sowing time. The ground is not all dug over and then raked, as is generally done by many when preparing for garden seeds. After two or three spades are turned over, a coarse rake is applied to break the clods; a second comes after, and a third, to level—that is only where there are a number of spades are going at the same time. The ground is then marked off into four-feet beds and fifteen-inch alleys, with a heavy, square, or round-headed, rake. The operator (technically called cuffing) stands sideways, one foot before the other, at the right hand alley, and commences, with the head or back of the rake, to move back the soil from the center of the bed to the opposite alley to the depth of three or four inches, taking care to keep in a straight line to form the edge of the bed, and keeps moving on around the bed in the same way until all is thrown back, which soil is to serve as the covering for the seed. In cuffing much depends on the weather—if moist, shallow; if dry, a little deeper. The seed is then thrown regular on the bed by the person taking up one-half and down the other, at the same time being careful not to tramp on the soil cuffed out of the bed. When all is sown, a small roller the width of the bed is drawn over the seed, or it is pressed in with the back of the spade. A short-toothed rake is then introduced to draw the cuffed soil over the seed, which must be done with a smart jerk of the right hand; a little is then thrown up out of the alley and finally a fine rake traces over the top of the bed to make it a little regular. Sometimes in dry weather any waste small nursery stock is laid thinly over the bed to shade and keep the birds off while it is coming through the ground. A Nurseryman.—*Mt. Pleasant, C. W.*

Nurserymen's Reputation.—I think it is high time for the public to know what a nurseryman is, and how a respectable nursery is conducted, as their regular and systematic way of pruning and transplanting, to insure success to the purchaser against those quack impostors that stick a thing in to grow as a stick and then sell it for gain, with all top and no bottom, the same as a well grown tree, to people that know no better than to buy for its fine top and low price.

I have found many such as the *Country Gentleman* and Mr. Prince describes among country people, with high-colored plates, &c., telling great tales about this and that, and where from, in my opinion that knew more about the properties of winning a dollar than either a tree or shrub. It makes one almost disgusted with his profession when such comes in his way. What is wanted, is a register of all the trade, such as Glenny, of London, publishes yearly in his *Gardener's Almanac*, or an association of nurserymen and seedsmen such as was formed some ten or twelve years ago in Scotland, when there was so much fraud, called the North British Association, for the protection of an honest man against a quack selling a counterfeit for a low price, which I believe was of great benefit to the public by getting good and genuine seeds, plants, &c. A Nurseryman.—*Mt. Pleasant, C. W.*

Loof.—Herewith I send you a few seeds of a vegetable called "Loof," brought from Grand Cairo, in Egypt, last year by my uncle, Rev. Dr. Dorr, of Philadelphia, which he has just sent me for cultivation.

The fruit is described as resembling a Cucumber, from which, after the ripe and decaying pulp has been washed away, a fibrous substance is left very much in appearance like fine manilla grass, but woven by the great Architect into a beautiful woof with three ornamental rows of seed cells, slightly raised from the ground-work, in admirable adaptation for the purpose to which it is applied. This is used by the Turks, in their baths, as a wash-cloth; or, when dry, as a flesh-brush of which I have a specimen about eleven inches long by three inches wide, (which I shall be happy to show you hereafter,) the full size of the fruit, cut longitudinally, which I am told grows on a vine resembling our common Gourd.

Please plant the seeds in your green-house and see what they may come to. J. Dorr.—*Scottsville, N. Y.*

Mr. Dorr will accept our thanks for the seeds; they are put in the way of growing.

Notices of Books, Pamphlets, &c.

Homes for the People in Suburb and Country, the Villa, the Mansion, and the Cottage. Adapted to American Climate and wants, with examples showing how to alter and re-model old buildings, in a series of One Hundred original designs. By Gervase Wheeler, Architect, Author of Rural Homes, &c. New York: Chas. Scribner. 1855.

Homes for the People is indeed an attractive title for a book, in these times when people are really beginning to realize the meaning of that word—*Home*. The book itself is no less attractive than its title, for, like all of Mr. Scribner's books, it is presented in beautiful style. Paper, type, and illustrations, are all excellent. In size it is about equal to Downing's *Fruits and Fruit Trees of America*. It is divided into five parts, thus: Part 1, The Villa; Part 2, The Mansion; Part 3, The Cottage; Part 4, The House on a Farm; Part 5, Constructive and Miscellaneous details.

Each of these parts is again subdivided into chapters, in which the various branches of the subject are separately discussed. The arrangement seems to be all that the reader could desire; and this, in the making up of a book of this kind, is a matter of no small importance.

The want of leisure has prevented us from perusing this book so fully and carefully as to enable us to offer any lengthy account of its contents; but we can cheerfully say this much—that it is one of the most practical and comprehensive treatises of the kind which has yet appeared in this country. Every man who intends to build a house, whether the cost be $1,000 or $20,000, and all who contemplate alterations or improvements in their dwellings, should immediately consult it. More than this, it will be found a most interesting book to all classes of readers, whether they intend to build or not, for Mr. Wheeler possesses the faculty of expressing his ideas in refined and very agreeable language.

We are informed that Mr. Chorlton is preparing, and will very soon have ready for the press, a new, large, and greatly improved edition of his treatise on Grape culture. It will be very acceptable at the present time, when sound, reliable information on this branch of culture is much sought for. The appearance of good, practical works on rural affairs is the best sign of our progress.

Answers to Correspondents.

(D. H. P., Lyons, Iowa.) The Bark Louse.—To get rid of this pest on the small branches, you must *prune them in* closely and wash all the remaining parts as you suggest.

(A New Jersey Subscriber.) Pears.—The *Bergamot Sageret* is a large roundish Pear of second quality, melting but insipid. It keeps till January, and is not likely to prove of much value. It is very similar to, if not identical with, *Belle Connaise*, another of Sageret's varieties.

Willow Hedges.—If "H. H., of Winchester Center, Conn.," will have a little more patience, we will give him some information about Willow Hedges as soon as the experiments are more advanced. In the meantime he can prepare the ground and plant the cuttings, in a single row, six inches apart if for a very close fence, otherwise ten inches will answer for ordinary farm purposes; but in each case let only two shoots grow from each cutting until two years old. Chas. Downing.—*Newburgh, N. Y.*

(J. G., Clark Co., Ohio.) Wash for Trees.—Soap suds make a very good wash for young fruit trees.

Top-Dressing.—Leaves make a good top-dressing, if mixed with some earth and lime and laid in a heap until they are pretty well decomposed. Apply in the fall, or very early in the spring.

Pears.—You will find the varieties you mention described in Downing's or Thomas' pomological works. None of them can be recommended for orchard planting.

Curculio.—My attention has been attracted to Mr. Adair's article in the April number of your magazine, on the Curculio and the mischief occasioned by the little "Turk," and it occurs to me to inquire of you whether any one in your region, or in the vicinity of Avon, has ever treated the olfactories of the Curculio to the perfume exhaled from the water of the Sulphur Springs at Avon, by syringing the Plum tree with the water thereof as soon as the fruit sets, and afterwards—and if so with what effect?

Allowing the theory to be correct, that the Curculio can be kept at bay by nauseous effluvia, is it not worth the trouble of an experiment to see how efficacious it may prove of offering him a few doses of this, in your region, cheap perfume. Perhaps I may have been anticipated by the observation of some of your friends residing at or near Avon, as to the fact whether or not the Plum, and other smooth-skinned fruits, where the atmosphere is partially saturated with the exhalation from the Springs, escape the attacks of the Curculio. Nathaniel H. Bacon.—*New Haven, Conn.*

We possess no information on this subject. Will some of our Avon friends look into the matter and let us hear from them?

Horticultural Societies, &c.

Hunt Botanical Garden.—A meeting of the trustees of the Hunt Botanical Garden was held last evening, at the Athenæum, corner of Atlantic and Clinton street, and the Chair was occupied by John W. Degrauw, Esq., President of the Association.

John W. Degrauw, Esq., who had been elected President of the Hunt Botanical Garden Association, addressed the meeting as follows:

"*Gentlemen*—Before assuming the duties to which I have been elected by your partiality and choice, permit me to ask your acceptance of my most grateful feelings for this manifestation of your confidence, and I feel most fully sensible that without your most cordial co-operation and friendly aid, my efforts will be unavailing; and I trust that with them, the enterprise in which we are engaged, and in which we have all shown so deep an interest, will reflect the highest honors on its promoters, as well as add to the enlargement of science, and to the beauty of our city.

"This enterprize is not one of a day, a year, or a life-time—it is one that is to throw a brilliancy into the far extended future. It is one sacred to a science which has engaged the attention of the most distinguished men in every age; it is sacred in promoting the most humanizing and kindly influences; and sacred in creating the most inspiring spell that the charms of beauty can shed around the heart.

"While we yield to the emotions that are produced by the most distinguished liberality, and which has placed us in

a condition for the promotion of science, constantly multiplying in its allurements, and best suited to man's highest earthly destiny, as well as furnishing the intellect with the most abundant source of reflection. Those who have contributed to the advancement of such a noble end, must always appear before the world as its best benefactors.

"In the perspective we see a garden not only filled with native plants from the mountains and valleys of our own far extended Republic, but with the best specimens of the most new and valuable exotics from every clime, and, like the dew of Heaven, it is within the reach of all, and it is emphatically to be a garden for the people, within whose precints all may be taught lessons of refinement and wisdom.

"But notwithstanding the brilliant prospects that have attended our progress thus far, we have still before us a work of some magnitude, and one that should most zealously engage our immediate and undivided attention. The season is fast approaching that should induce us to put this enteprize in rapid motion, and still we cannot with propriety commence until the maximum of stock is subscribed, $150,000, of which $50,000 still remains to be taken; and it would not be very complimentary to a city as wealthy as ours to admit for a moment that it could not be very readily obtained. It appears to me that it only requires the effort and the amount will be procured in a very short time.

"It will not be expected that on this occasion I shall consume your time with any elaborate remarks; you have the different departments placed in the hands of gentlemen of zeal and ability, and they will from time to time present you with the most desirable plans and most efficient sources of information.

"The able and eloquent inaugural address of the Rev. Dr. VINTON lays on your table, and it is rich in reasoning to inspire us with the most fervent zeal in the promotion of our cause and its ample attainments.

"I would on this occasion indulge my feelings in the most devoted ejaculation, that this garden, so magnificent in design, so well suited to the condition and happiness of our race, may not fail in its accomplishments, but prove equal to the sublime conceptions of the great patriarch in botany, and become as reverenced as the academic gardens and rural retreats of the ancient philosophers and their students in search of science."

This address was received with great applause.

The Committee on Deeds reported that they had received the deeds of the several plots of ground upon which the Botanical Garden is to be laid out, and they were received and ordered to be recorded in the proper office.

On motion, a Committee of three was appointed to get the Charter, By-Laws, and names of the Officers printed; and Messrs. MEADE, DEGRAUW, and the Secretary, were appointed as said Committee.

On motion, the Finance Committee was directed to petition the Common Council to grade the 5th Avenue, or so much of it as would facilitate the operations of the Association.

OFFICERS.—The following officers of the Association were elected at the previous meeting of the Trustees, and they have commenced to perform their duties:

Patron—THOMAS HUNT. *President*—JOHN W. DEGRAUW. *Vice Presidents*—1st, WM. C. LANGLEY; 2d, J. S. T. STRANAHAN; 3d, WILSON G. HUNT; 4th, ETHELBERT S. MILLS; 5th, E. B. LITCHFIELD. *Treasurer*—JOHN D. COCKS. *Recording Secretary*—MARTIN L. SCHAEFER. *Corresponding Secretary*—A. J. S. DEGRAUW. *Librarian*—HENRY STARR.

COMMITTEES.—*Finance Committee*—Wm. C. Langley, Jas. Hazlehurst, Addison G. Jerome, Wm. Spencer, Chas. B. Marvin, Alfred Large, Ira Smith. *Executive Committee*—Henry A. Kent, Ethelbert S. Mills, Wm. C. Langley, J. S. T. Stranahan, A. J. S. Degrauw, E. Litchfield, L. B. Loder. *Construction Committee*—John Maxwell, J. A. Perry, J. S. T. Stranahan, H. A. Graef, H. A. Kent, J. E. Rauch, E. W. Fiske. *Plant Committee*—Peter B. Mead, H. A. Graef, J. E. Rauch, J. W. Towl, W. S. Dunham, Geo. Ingram, M. L. Schaefer.

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GIGANTIC WELINGTONIA

To the Readers of the Horticulturist.

THIS number of the *Horticulturist* will convey to its readers the intelligence of an important change in its affairs, and this change closes my engagement as Editor.

I make this announcement with mingled feelings of pleasure and regret—with pleasure, because it relieves me of duties which I had not the leisure to discharge with efficiency; with regret, because I feel as if the ties which bound me to a wide circle of friends were partially severed.

For my own part, I should have been glad if this change had been deferred until the close of the current volume; but this is a matter over which I had no control, and for which I am not in any way responsible. I say this, not because I have any apprehension that the patrons of the work will feel themselves wronged, but because I prefer to fulfil every engagement I enter into as far as it may be possible.

It was in the first place with very great reluctance that I consented to take the editorial charge of the *Horticulturist*, as successor to the lamented DOWNING. I knew how warmly his readers were attached to him, and how ardently they admired his taste and talent as a writer. On all sides I heard it declared, "there is no one to fill his place," whilst I was fully conscious of my own want of the requisite qualifications and leisure to sustain the character and usefulness of the work, and satisfy the expectations of the public.

My friend, Mr. VICK, with whom I was at the time associated in conducting the "*Genesee Farmer*," purchased the *Horticulturist* of Mr. TUCKER, during my absence at the meeting of the Pomological Society in Philadelphia, without having advised me of his intentions. On my return he informed me of his purchase, and that he relied upon my assistance. I declined and hesitated for some time, but finally to save him from disappointment and probable loss, I consented to undertake the duty for a time, and do the best in my power for him and the patrons of the work.

How I have succeeded is not for me to say, but I have the gratification of knowing that the circulation of the work, to-day, is more than twice as large as it was at the time of Mr. DOWNING'S death. No journal of the kind has, or ever had, so wide a circulation in this country. I mention this not in a spirit of boasting, for I am quite free to confess that this result is not wholly due to my humble exertions, but in a great measure to the good taste and liberal co-operation of Mr. VICK, the publisher, to the zealous and efficient aid of contributors, to the kind encouragements of the press, and of the friends of horticulture in general. I feel that my labors have been estimated far above their value, and for all this kindness and partiality I tender my grateful acknowledgements. I do not relinquish my charge as one sick with disappointment, on the contrary I am well pleased; and when my business can

be so arranged that I can withdraw a portion of my attention from it, I may again offer my services to the public in some similar way. The labors of my life, whether it be long or short, are pledged to the interests of American Horticulture in one way or the other.

The future of this journal will, I hope and trust, be no less prosperous and useful than the past; indeed, I have reason to believe it will be much more so. The gentlemen who assume its management possess ample facilities for doing justice to every department.

JOHN JAY SMITH, Esq., who takes the editorial charge, has manifested a lively interest in the welfare of the *Horticulturist* from its commencement, and has contributed ably and regularly to its pages. For many years he has devoted the greater portion of his time to horticultural pursuits, as a zealous amateur; he enjoys abundant leisure, and is well read in the literature of Gardening, both of this country and Europe.

The duties of the editorial chair will be to him "a labor of love," and I have not the slightest apprehension but that he will discharge them creditably to himself and acceptably to his readers.

The Publisher, ROBERT PEARSALL SMITH, Esq., is also eminently qualified for his duties. As a proof, I need only refer to "*The North American Sylva*," which he has issued, and is now issuing, in such magnificent style. He is a master of his profession, and I am quite confident will not allow the appearance of the *Horticulturist* to suffer in his hands, but rather that he will augment its attractions.

In this vast country of ours, with more than twenty millions of inhabitants, a very large majority of whom are engaged in the cultivation of the soil, there are but *three* Horticultural journals, with an aggregate circulation that does not exceed ten or fifteen thousand I believe. This is really astonishing, when we consider that so large a proportion of the population are remarkable for their general intelligence, so keenly alive to their own interests, and so greedy of information on all subjects.

The *Horticulturist*, conducted as it has been, and as I presume it will be, on the broad plan of an American National work, appealing directly to American feelings and interests, should have a circulation in these United States of not less than fifty thousand, and I hope to see this result consummated.

I hope to see it circulate as freely amongst our people as *Harper's* or *Putnam's Magazines* do now, and even more so.

P. BARRY.

THE EDITOR TO THE READER.

DOWNING—we never write the name without emotion—said in reply to an announcement that we had pitched our tent in a rural home, now in the limits of the city of Philadelphia, "You are now one of my parish." We often wish that the man could be named on whose mantle his fine and noble spirit and refined taste had fallen; we cannot do this, but we can trace his influence on the present generation, and his parish, then a small one, has grown, though not in the same ratio, with the

growth and prosperity of the country; it continues to multiply, and the greatly increased and increasing numbers of the readers of this periodical is the evidence.

The duties of the late publisher have called him from the exact niche which would enable him to devote the time and thought necessary to the circulation of a periodical widely spread and esteemed over the Union, from Texas to Maine, and from the Atlantic to the Pacific. Where shall the work be localised, was the question among its friends, and where seek for an editor to supply the consequent resignation of Mr. BARRY, whose most able management is now forbidden by commercial engagements. Philadelphia, the geographical and climatic, as well as the horticultural centre of the Union, was believed to be the most desirable point of issue, and it was further decided in a council of the well-wishers of the work, that most of the qualifications of information and practical knowledge could be found in the correspondents of the journal, and in a city which first formed and still continues a most useful Horticultural Society, and where is contained a corps of enthusiastic lovers of rural adornment and botanical science; a centre, in fact, where DOWNING'S parish was much enlarged—accessible to all travellers from North, South, East and West—where contributors and facts were numerous, and varied illustrations could be commanded—central also for correspondence and for distribution.

Thus far all seemed smooth, but for editing and controlling the printed contents, a selection was thought to be more difficult, till at length the expedient of a combination of qualified contributors was suggested.

It is that combination which the controlling editor, with many misgivings, has undertaken to assist in carrying out. With the aid of a number of veteran Botanists, Pomologists and Horticulturists, and with every wish on our own part to be the medium of information to our countrymen, and thus to extend the list of those who are doing so much to form a national taste essential to the nation's character, we have come before the public to perform what is in our power, and to conduct the *Horticulturist* in an American and national spirit; to make it the vehicle of no personal ambitions, the mouth-piece of no clique. Our object is to impart knowledge and taste through the means of the best informed correspondents, and the most able and practical writers of the age of every country where rural affairs have become a fine art, and by the devotion of our time and some little experience, united to an overshadowing love of the subject, to render the *Horticulturist*, if possible, at least as acceptable a visitor to its numerous patrons as heretofore it has been. For success we rely most on our contributors, old and new; and with this avowal, we invite their aid and co-operation, for without them we are entirely sensible we must fail—with them, success, we feel assured, is certain.

Possibly there may be a few of this our newly settled parish, who will not object once more to meet in consultation an old friend in his newer studies, the editor of "Waldie's Select Circulating Library."

PLANTING SHRUBBERIES.

BY WILLIAM SAUNDERS, GERMANTOWN, PHILADELPHIA.

To arrange the improvements of a country residence judiciously and economically, is an interesting question to all who anticipate building. It is evident from the many extravagant expenditures of frequent occurrence in the laying out of country places, that the spirit of improvement is entered into without sufficient reflection; for although it may be considered that all have their own ideas of comfort and convenience in the abstract, yet few can carry into execution all the details, or satisfactorily introduce and fit all the disjointed parts so as to form a complete whole.

This is more strictly applicable to the improvement of the grounds. Few are their own architects, although they may have peculiar conveniences which they wish embodied in the construction of their dwelling; the whole is left to the discretionary approval of a competent professional person. On the contrary, most people fancy themselves perfectly qualified to lay out their grounds. In some cases we have known heavy sums expended in the endeavor to secure the indiscriminate imitation of some popular or approved style, altogether unsuited to the *genius* of the place, and the error has not been found out until it was too late to derive much advantage from the discovery. Such instances are to be regretted, inasmuch as they tend to retard the general improvement of grounds under the mistaken notion that a pleasing landscape cannot be developed unless at enormous expense, while the truth is, that in ninety-nine cases out of a hundred where heavy sums have been expended in the so-called improvement of grounds, it will be found that the result is far from being commensurate with the expense, and that a *change* of scenery is not necessarily an *improvement*.

The art of Landscape Gardening and the art of Landscape Painting are somewhat similar in their results, although the practical application of details and mechanical arrangement of materials are widely different. The gardener must not only possess a high degree of refined and cultivated artistic taste, but he must also have a thorough knowledge of the habits and requirements of plants, their general and special combinations, and every thing in connection with their culture and management. In his compositions he must have an eye to future as well as immediate effect, and his best efforts are liable to become tame and uninteresting from causes which he can neither foresee nor remedy. The painter, on the other hand, can cull from nature many of her matured and richest scenes, and so dispose of them on his canvass that they form one complete and enchanting picture.

That a higher degree of care and skill must be brought to bear upon the arrangement of a place a couple of acres in extent, than in one of fifty acres, is well known to all who have any acquaintance with the subject. Many persons have an idea, and we have frequently heard it confidently asserted, that the same general effect can be produced in both, by following a similar method of arrangement. This

impression is quite as erroneous as its production is practically impossible. As well might we expect to derive as true an idea of the magnificent proportions of the Washington monument from the exhibition of a five-foot model, as from the contemplation of the great original, so great is the difference between imagination and reality.

But much can be done to render small places interesting; their confined and limited extent suggests a method of arrangement by which a great variety of interesting features can be introduced, and although they may not arrest the attention and admiration of the spectator by their magnificent grandeur, they afford more pleasure in the examination of details. "Unity in objects is essential to beauty, from the limited nature of the mind, which can only see and understand one thing at one time, and variety is equally necessary, from the expansive nature of the mind, which can see and understand an indefinite number of objects, provided they are presented to it in succession." The leading features to be kept in view are variety and contrast, or distinctiveness in the various objects introduced. The converse of this is well exemplified in many places where the trees and shrubs are so numerous, and planted in such a regular and systematic manner, as to convey the idea of a nursery rather than of pleasure ground. There is nothing to arrest attention; turn which way we will there is the same unmeaning assemblage, and we are lost in the vain endeavor to discover the design or intention of the planter.

Many persons have vague and indefinite notions respecting the dispositions of trees and shrubs in pleasure grounds. It is not uncommon to see shrubs of the smallest size, and even herbaceous plants, placed in isolated positions on the lawn. This mixing up of grass and small plants is very prevalent, and where it is adopted any thing like striking effect cannot be produced. Shrubbery should be considered and treated as quite distinct from the lawn proper. The ground occupied by masses of shrubbery should, at least while the plants are young, be cultivated and kept clear of grass and weeds. A few years of such treatment, until the plants are of sufficient size to shade and prevent the growth of weeds, is all that will be found requisite. Shrubberies, more especially in small places, where a feeling of extent and intricacy is desired, should be allowed to grow into dense masses, so as to form a screen or thicket impenetrable to the eye. This is one of the finest features of a small place, and the only way in which it can be made to appear extensive, so that in walking through the grounds all the paths are concealed except the one occupied at the time. By this means a variety of interesting views and scenes may be of constant occurrence, and the attention of the spectator is directed to the variety and intricacy, rather than to the extent of the whole.

Further to secure this illusion, recourse may be had to the frequent occurrence of striking objects, isolated, although apparently connected with the principal groups of planting. Rare trees and shrubs, or those of botanical or historical interest, flower vases, statuary, rustic seats, &c., may be effectually introduced, but they require to be skillfully managed, otherwise what is intended for variety may result in confusion and absurdity.

The most expensive improvement in grounds, and in most cases the least satisfac-

tory, is that which involves the removal of large quantities of soil. With many of our modern improvers, to grade and level seems to be synonymous with taste and beauty. There are, however, instances where artificial elevations and depressions are strikingly valuable. We have seen two walks running nearly parallel, only a few yards apart, completely hid from each other by the intervening space, being elevated and planted as in the Derby arboretum, &c. The effect of several years' growth may thus be obtained in a day, and walks brought quite near each other without being obtrusive, or out of place. Shrubbery, to be effective, must be thickly planted. Plant with a view to a periodical thinning out of the least desirable kinds. Our shrubberies are all too thin; they cover too much space. We have seen wonderful effects produced in grounds where all appeared scattered and confused, by simply gathering in a few of the outside plants and placing them in the main body. In planting with reference to future thinness, the experienced planter will find no difficulty in locating each kind in its proper situation, both with regard to future and immediate effect; for however desirable it may be to form a feature which will stand as an example for future admiration, it is no less desirable that we should endeavor to supply the wants and claim the approval of the present.

The style of the building invariably suggests the method of arrangement, as well as the most suitable trees and shrubs for its immediate vicinity. The house being the principal feature in the composition should be treated as such, and trees of the largest growth may be placed in connection. Both the kind and quantity of this class of trees will, of course, depend upon the size of the building and extent of the grounds. Shade is indispensable to a pleasant country residence. The introduction of trees, therefore, combines effect and utility in an eminent degree. We shall probably recur to this subject, with a select list of trees and shrubs for a place of moderate extent.

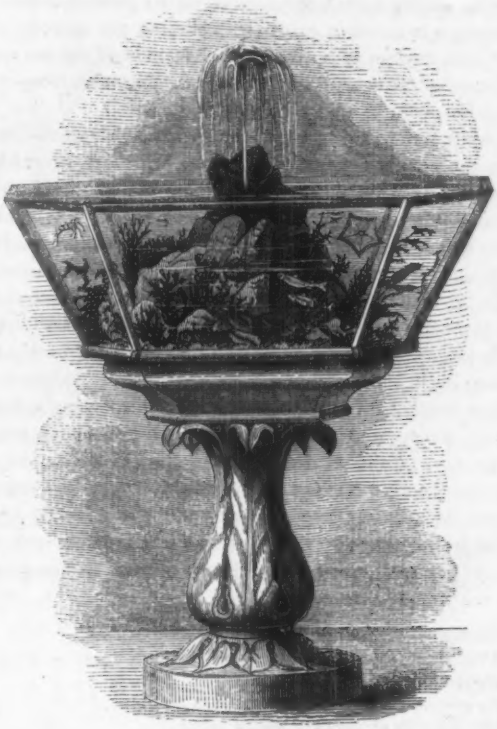
THE AQUARIUM.

BY THE EDITOR.

SOME years since much interest was created by the invention of Dr. WARD for growing plants in closely glazed cases. It afforded much pleasure to scientific persons and to invalids, and was altogether a valuable and instructive in-door ornament. Its chief value, however, was from its adaptation to the transport by sea of new and rare plants. All FORTUNE'S new discoveries were sent from China in this way, and the Tea plant was forwarded thus to be domesticated in India. Consignments are continually arriving from all parts of the world in England and America in Wardian cases, which exclude the sea air and spray, and thus enable the Captain to carry the package on deck, so that plenty of light can be admitted.

The Aquarium is an adaptation of WARD'S principle of compensation to the keeping inland of sea animals, fishes, shells, &c., in a healthy condition. The con-

trivance may be made highly ornamental for the study, or even the drawing room. PHILIP HENRY GOSSE, a naturalist, has issued in London a beautiful duodecimo volume with highly ornamental plates, from which our wood cut is selected of



THE FOUNTAIN AQUARIUM.

This glass case enables the possessor to study the habits of marine animals, to carefully note their various actions, and their behavior under different circumstances. A result often most curious and unexpected has rewarded the student. The most interesting parts, by far, of natural history, are those minute but most graphic particulars, which have been gathered by an attentive watching of individual animals; witness WILSON'S picture of the mocking-bird; GODMAN'S of the insects in a small pool; VIGORS' of the Toucan; BRODERIP'S of the Beaver "Binney;" WOLLASTON'S of the water-shrew; BENNET'S of the bird of Paradise; and multitudes of others.

The inhabitants of the deep sea have hitherto been almost inaccessible to such observation, which must, after all, be the foundation of all correct generalization. The Marine Aquarium bids fair to supply the required opportunities of study, and to make us acquainted with the strange creatures of the sea, without diving to gaze on them.

The idea of maintaining the balance between animal and vegetable life on chemical principles is not so novel as was at first supposed. PRIESTLY first advanced the opinion that plants, in certain circumstances, emitted oxygen gas; and INGENHOUSZ soon after discovered that the leaves of plants, when immersed in water and exposed to the light of day, produced an air which he announced as oxygen gas. Professor DAUBENEY in 1833 elucidated the subject. He regarded light as operating upon the green parts of plants as a specific stimulus, calling into action and keeping alive

those functions, from which the assimilation of carbon and the evolution of oxygen result; that in fine weather a plant, consisting chiefly of leaves and stems, will, if confined in the same portion of air, night and day, and duly supplied with carbonic acid during the sunshine, go on *adding to the proportion of oxygen* present, so long as it continues healthy, at least up to a certain point. Considering the quantity of oxygen generated by a very small portion of a tree or shrub introduced, he saw no reason to doubt *that the influence of the vegetable might serve as a complete compensation for that of the animal kingdom.*

Dr. WARD in 1837 was "quite certain that a great number of animals would live and thrive" under the treatment we now see perfected by the Aquarium, in which the animal and vegetable respirations counterbalance each other; the volume of air, with the quantity of vegetable matter required, as compared with the size and rank of the animal, is the problem now solved. The result is, the public exhibition in the London Zoological Gardens of lobsters, fish, shells, corallines, sea-anemones, sponges, and lithophytes, &c., in their natural state, with their brilliant colors and peculiar habits all revealed through the glass which surrounds them. Great care has been found necessary in procuring pure sea water, and that the barrel in which it is brought, even to the bung itself, should be free from any vitiating substance. The decay of leaves in a fresh water Aquarium was obviated by introducing a few common pond snails (*Limnea*), which greedily fed upon the decaying vegetable matter and slimy mucous growth, so as quickly to restore the whole to a healthy state. Experiments have demonstrated the kind of sea weeds necessary to keep up a regular compensation for many months without change of water, and this scientific toy, if toy it can be called, when its beauty and value, with the possible discovery of new coloring matters, modes of propagation of fish, &c., are considered, is now quite a fashion. Beautifully has the American poet sung:

"Look on this beautiful world, and read the truth
In her fair page: see every season brings
New change to her of everlasting youth;
Still the green soil with joyous living things
Swarms; the wide air is full of joyous wings;
And myriads still are happy in the sleep
Of ocean's azure gulfs, and where he flings
The restless surge. Eternal love doth keep
In his complacent arms the earth, the air, the deep."

Bryant.

The Domestic Aquarium is not usually accompanied by a fountain as shown in the wood cut, but is simply a glass water-tight case, filled, as represented, by various marine animals. It is somewhat amusing, and we have no doubt true, that individuality of dispositions has been discovered in the specimens of the same family, even among the smallest.

WATERING TRANSPLANTED TREES.

BY THOMAS MEEHAN, GERMANTOWN, PHILADELPHIA.

IT is very customary with many horticultural magazines, to sum up at the end of the season all the improvements which may have been made in gardening during the preceding year. This enables us to see at a glance how much we have progressed, and how far we have left our forefathers behind. Still it must have occurred to many readers of these summaries, that our progress must have been exceedingly slow if all we have been learned to avoid or improve has been noticed in these retrospective sketches. But the fact is, we have advanced faster than our own journals have given us credit for. Ideas that are really sound and valuable creep about amongst gardeners like ivy over old ruins, till, once well established, no one knows when or by whom *it* was planted, or how *they* originated.

I was strongly reminded of this by reading in an old "Gardener's Calendar" the following advice: "Should dry weather prevail, apply frequent waterings to all newly transplanted trees and shrubs." I venture to say, that there are very few of our many intelligent gardeners of the present day, who would give such advice; and yet it seems so reasonable that when a plant is likely to wilt, it *must* require water, that we cannot wonder that the practice still extensively prevails.

It is, therefore, a perfectly natural and legitimate enquiry, that, "If we must not water plants under such circumstances, what must we do to save them?" The answer will be best understood by being given in detail.

That a plant must have a certain amount of moisture to enable it to live, is well known to every one; and that this moisture must be absorbed through the instrumentality of the fibres, or small rootlets, is a no less widely disseminated fact. When a tree is "*well established*," that is, has been growing for some time in a given situation, the rootlets *pierce* the soil, so that they are in a manner *encased* by it. In this position how easy it is for them to draw in their required supplies of water. The communication between them and the soil is unbroken, and moisture passes from one to the other by a process nearly akin to capillary attraction. How important then that soil thrown in around the roots at transplanting should be finely pulverized, and that every means should be taken to induce it to enter every "hole and corner." But with the greatest possible care, this can never be done to a perfect degree. The soil will still have an opportunity to *sink;* that is, will be filled with large air spaces; and whatever roots may be in these cavities, or air spaces, will either get dried up or injured.

It is a first-rate plan, and one which, in critical cases, I have often employed to advantage, to fill the hole intended for the tree with water, throwing in soil enough to make it of the consistency of thin mortar, into which the tree is put, and the

remaining soil drawn in without tramping or pressure of any kind. A tree so planted will never require watering afterwards; but it will require other treatment, which will be yet noticed before the end of this chapter.

Surface water should never be applied to a transplanted tree in the manner usually given, for the following reasons: Every one knows that there are certain substances, which do not absorb heat readily, and which are termed good *non-conductors;* and others which are soon heated, or *conductors.* Wood is a tolerably good non-conductor, because it will not become as readily heated as iron; while a brick is a better conductor of heat than clay or other soil, because it sooner becomes warmed through. A large clod of earth, also, becomes heated through in much quicker time, than the same bulk of soil would have done in a well pulverized state. This absorption of heat would not, perhaps, be of so much consequence to the plant, were it not for the increased impetus it gives to evaporation. A large clod of soil not only soon *heats* through, but soon *dries* through,—*it is a better conductor than pulverized soil.*

It is obvious, then, that a soil is in a good condition to retain moisture about the roots of newly transplanted trees, when it is as far removed from a clotty condition as possible. But water, when frequently and forcibly applied to the surface, tends to harden it, and renders it liable to "bake" by a very little sun, *therefore,* surface watering should, if possible, be avoided; as, indeed, should every thing liable to produce this effect on soils.

The question now occurs, that if a tree has not been watered at transplanting in the manner above described; and if it is evidently suffering, or likely to suffer, for want of moisture, how is it to be applied, except through the surface? The mode is this: Draw away the soil from around the stem of the tree with a spade or hoe, until the roots are nearly reached, and in such manner as to form a basin around it; fill in water to the brim. An hour or so afterwards, when the water has soaked thoroughly away, draw back the dry soil forming the brim of the basin to its former position as lightly, and without pressure, as possible. It is all the water it will require that season, if properly performed.

And now that we have seen our trees well planted, and those that need it afterwards well watered, how shall we proceed to aid the soil in retaining the moisture supplied to it? Simply by keeping the surface well *pulverized,* and in the best condition of a non-conductor that we can bring it into; but it is necessary not to mistake what pulverization means. *Stirring,* or "loosening up" a soil, is *not* pulverizing it, though often supposed to be. It is, however, the first step towards it. In farming, the *plough* stirs up the soil; the *roller,* or harrow, pulverizes. The *heo* and the *spade* are the gardener's plough; his *feet* form his roller, or clod crusher. The operations of ploughing and rolling, and of loosening and pressing, in gardening should always go together; and, in relation to tree planting, whenever a soil is getting hard, or in a "caky" condition, it should not only be hoed or stirred up, but as soon as the loosened soil has become a little dry, it should be pressed with the feet, and crushed to atoms.

This is the whole secret of the business. Get the soil once well encased around the roots,—once well watered,—and all that is necessary afterwards is to keep the surface soil well pulverized, that is, its little atoms well divided, in perfect *dust* if you will; and there will seldom be a failure, if the tree be healthy otherwise.

I do not imagine I am offering any thing new in this article. The facs are well known to practical gardeners; but I presume that amongst the thousands of readers of the *Horticulturist*, there are many novices and amateurs to whom the hints may be acceptable.

DIERVILLA JAPONICA, *DC.*

BY W. D., WEST CHESTER, PA.

DEAR SIR:—In compliance with your request to be furnished with some account of the history, synonyma, &c., of the pretty flowering Shrub, known among our Florists by the name of *Weigelia rosea* (or *Weigela*, as it has often—and perhaps was originally—written),—I take pleasure in sending such notices of the plant as my limited resources enable me to offer. It appears that this shrub was announced, by the London Horticultural Society, as "one of the *new* plants" sent home to England from China, about ten years ago, by Mr. FORTUNE. *See* DOWNING'S *Horticulturist*, *vol.* 1, *p.* 48. A further account of it, with a figure, is given in the second volume of the *Horticulturist*, pages 359–60. The description is tolerably good,—except that, with us, the branches, loaded with beautiful flowers, are rather erect, and do not "hang down in graceful and natural festoons." The plant is also briefly noticed in volumes 3 and 4,—and still as if something *new*. It would seem, however, that the same plant was made known by KAEMPFER, as long ago as 1712, by the names (probably *aboriginal* in Japan,) of *Sima utsugi*, and *Nippon utsugi*. THUNBERG, in his *Flora Japonica*,—supposing it to be a new genus—published it, in 1784, by the name of *Weigela Japonica*,—in honor of Prof. C. E. WEIGEL, a German Botanist. WILLDENOW, in his edition of the *Species Plantarum*, *vol.* 1, *p.* 836, gives it by the name of *Weigelia Japonica*. Professor DE CANDOLLE, being satisfied on a closer examination, that it really belongs to TOURNEFORT'S previously established American genus, *Diervilla*, referred it thither; and in 1830, published it in the 4th volume of his *Prodomius*, page 330, by the name of *Diervilla Japonica*,—retaining, according to the received canon, the *specific* name imposed by THUNBERG. By this name, of course, it will be hereafter known among Botanists—and all others, who are duly posted up, or desire to be correct, in the use of the authentic nomenclature.

This species is stated to be indigenous at *Jeddo*,—at or near which place, Commodore PERRY negotiated the recent treaty with Japan.

I observe the plant, under cultivation here, frequently sports flowers with a *four*-lobed corolla, and *four* stamens,—the normal number being five.

There is another species in Japan—referred doubtfully to this genus,—viz:

Diervilla Coraeensis, Dc. (Weigela Coraeensis Thunb.), — which, if established, will make, with our *D. Canadensis, Willd., three* known species altogether.

[Thanks to our correspondent for his lucid account of a plant we much admire' and which will undoubtedly take a permanent place in all gardens. The name which it generally receives is a fruitful subject of discussion from its awkwardness and uncouthness; as a Rose by any other name, &c., so the Weigelia will be as beautiful under its proper name of Diervilla, though we cannot but wish that it had a designation as easily remembered as the old favorite *Lilac.*—ED.]

NOTES ON CINCINNATI.

BY P. BARRY, ROCHESTER, NEW YORK.

CINCINNATI is renowned for her Strawberries and Strawberry Growers and for her fine Catawba Vineyards, but these are not all her horticultural attractions. She has within her environs a large number of charming private residences — the country seats of her merchant princes — of which she may not unreasonably feel proud. This "Queen City" is surprising the world by her rapidity of growth, and the traveller who visits her cannot fail to be surprised at the indications of wealth and refined taste which are scattered so profusely around her outskirts.

I spent two very pleasant days there, the last of May and first of June — not only pleasant days but profitable ones, for I had an opportunity of examining satisfactorily the numerous and extensive Vineyards, which are not to be met with elsewhere. All appeared to be in a most flourishing condition; the vines had passed out of blossom, and an abundant crop of fruit was set, giving promise of a rich harvest. A light frost had left some traces of its blight, but the injury was not regarded as of any moment. Nothing can afford a better proof of the successful results of this culture than its rapid extension. The hills are all dotted over with Vineyards, and I found them even beyond the hills, on the deep and fertile plains. The vine-growers are enthusiastic too in their business, and execute their work in the most thorough manner; they seem to love it, as well they may, for nothing in the way of cultivation can be more interesting or beautiful. It has a fascination about it that cannot fail of awakening enthusiasm.

I had an opportunity of inspecting the cellars of Mr. BUCHANAN and Mr. LONGWORTH, the leaders and early promoters of vine culture. Mr. LONGWORTH has recently built additions to his at a cost of some $30,000, and the entire cost of his cellars is estimated at some $60,000. Every part of this vast cavern is occupied with some branch of the business. I was told that at the present time it contains more than 150,000 bottles of wine, besides a great number of casks. In the absence of Mr. LONGWORTH, his gardener, Mr. PENDLETON, and Mr. FOURNIER, the head of the wine department, bestowed upon me the most polite attention. Mr. LONGWORTH'S specimen Vineyard is very interesting. He has there assembled the most diversified collection from all parts of the continent, with a view of testing

their fitness and value for the production of wine. If it be true, as some people honestly believe, that this native wine is to be one of the most powerful aids to the temperance reform, then Messrs. LONGWORTH, BUCHANAN, and those other gentlemen of Cincinnati, who are prosecuting this business with such zeal, are genuine philanthropists. At any rate it is pleasant to see those fair hill tops and steep hill sides covered with luxuriant vines. It seems like converting an arid waste into a fruitful and delightful paradise, and with all our heart we wish it success.

Turning from Grapes we pass to the Strawberries. I had a great desire to see those famed Cincinnati sorts in full bearing on their own ground, and in their greatest excellence. *McAvoy's Superior* and *Longworth's Prolific* are the two of greatest note—the great prize takers—and I felt particularly anxious to see them. I was not so fortunate in finding good collections as I had hoped to be. The nurserymen have sold themselves so close that they have but few left to bear, and these afforded no just criterion. Among the private gardens I found but two where these sorts were well grown. In one of these, especially that of A. J. WHEELER, Esq., the beds were in fine order. The *Superior* was the principal crop, having a few rows of *Prolific* amongst them; the plants of the latter were young, and had not a full crop. I am satisfied that both these varieties are valuable, hardy, productive, and of fine flavor. The *Superior*, as to flavor, would rank second only to *Burr's New Pine* among our American varieties.

I took several occasions to examine the market. I found immense supplies, consisting in most part of the *Iowa*, generally called "*Washington*" by the marketmen; *Hudson*, the old favorite sort, and *Hovey's Seedling*. The last named were in all cases the best, and sold at twenty-five cents per quart, while the others were offered at fifteen cents: I state this fact with some hesitation, lest it may cause our friend HOVEY to explode in a fit of joy. I hope, however, he will take it coolly. The first words I heard on the subject of Strawberries were, "Hovey's Seedling has beaten us all this season;" and judging from the samples in market, we should say this was really so. The growers who supply the market, informed us that the "Superior" would prove too tender for market, and would not be extensively grown. Hovey's Seedling, they all said, was not a great bearer, but looked well when gathered, and sold at a high price.

So much for Strawberries. The market is abundantly supplied with Vegetables, some good, but the great bulk of very indifferent quality. I observed a few heads of nice Cauliflower. It is very probable that the best articles do not reach the market stalls, but go directly from the gardens to private houses. The markets are not always conclusive evidence of the state of gardening.

The Nurserymen and Florists of Cincinnati are all prosperous, and are extending their operations with more or less rapidity. I visited Messrs. KELLY, HEAVER, SAYERS, JACKSON, and WILLIAMS, and found their grounds all in excellent order, with a fine stock coming forward. Mr. KELLY is branching out vigorously. He has built some excellent houses, and every department seems to be well sustained. Mr. HEAVER is establishing a branch nursery at Hamilton, and Mr. JACKSON is

out of town some five or six miles in a fine healthy situation, where he has built himself a large and commodious dwelling house, green-houses, and with abundance of excellent land, is getting up a fine nursery stock. The grounds of A. H. ERNST, Esq., I found particularly interesting, as they contain a large collection of bearing fruit trees. The ornamental trees and shrubs cover portions of the ground thickly, and make it a real wilderness of beauty. Mr. ERNST is one of the pioneers of Horticulture at Cincinnati, and has done much to lay the foundation of that taste which is now acquiring such development there.

Spring Grove Cemetery is another evidence of the wealth and taste of this young city. It is only second to Greenwood in beauty and good keeping, and is even fully equal in many respects. It is now under the direction of Mr. STRAUSCH, one of the most accomplished landscape gardeners in this country.

I would gladly give you some particulars respecting the beautiful suburban residences of Messrs. R. B. BOWELER, WM. RESOR, A. J. WHEELER, R. BUCHANAN, Mr. HOFFNER, and others, which I examined with much satisfaction, and I would also say something of the fine scenery that abounds everywhere around the city, but my notes are already too long.

I was accompanied in my rambles by M. B. BATEHAM, Esq., of Columbus, (who, by the way, is laying the foundation of a large nursery there,) and also by Messrs. KELLY and HEAVER, of Cincinnati. I am indebted to these gentlemen for great kindness on this as on past visits of this kind, and hope to repay their courtesy when I find them in my neighborhood.

THE HAPPY POMOLOGIST.

BY EMILE THE ELDER, PHILADELPHIA.

MR. EDITOR :—It is so rarely that we encounter in our 'go-ahead' country, true instances of rational contentment, which are the just result of wise and well regulated efforts in life, that the simple record of such examples, given through a public journal, may be productive of good; and at any rate, some few warm hearts, among your readers, will, I know, beat responsive in sympathy with the pictures I desire to offer through your columns.

The season of fruit blossoms this spring, was the time appointed by a distinguished Pomologist of our city, to accompany him, as a friend, on a visit to the residence of a gentleman, who practically and scientifically devotes his life and his fine residence in New Jersey, to the culture and improvement of fruits. A sense of delicacy forbids the introduction here of names already celebrated in the annals of American as well as European Pomology: but if my portraitures should unavoidably bring my friend, our host and his family so vividly before the mind's eye as to have them recognized, while I claim forgivness for the freedom, I shall not regret this simple attempt to do justice and honor to the man of genius.

We left Philadelphia in the afternoon cars for ———, and being at the end of our Rail Road travel at 8½ P. M., were met by the oldest son of the family with their carriage and good strong farming team: although the distance was short, we drove slowly,for the horses had performed their full share of spring labor at the plough, as our gentlemanly guide thought it necessary to inform me. Perchance his politeness in this apology for his team, was somewhat due to the fast driving he had not failed to observe in the people among whom he had already resided for about three years; he might mistake me, a stranger and by the dim light of the stars, for one of the fast driving men of the age; but on better acquaintance and by the day light that social intercourse throws upon character, I trust he would place me in a higher catalogue.

It was eleven o'clock when we reached the house of the Pomologist, and our party, consisting of my friend with his two little daughters, my son and myself, were received with the warm,frank welcome of old acquaintances, that puts the heart at ease. The whole family had awaited our arrival for a comfortable supper—rightly anticipating that the nocturnal drive would sharpen our appetites, and we were at once made to feel at home around the abundantly supplied table, in the midst of the family circle.

Retiring at a late hour, and sleeping the fast sound slumber that belongs so peculiarly to the quiet of the country, I found myself wide awake, and what was still more wonderful, *willing to get up* at 5 o'clock in the morning; going to the window of my chamber I found it looked out upon the gardens, and in a few moments I heard low voices in conversation. The two Pomologists were soon visible, and had started out with the early light of day to reconnoitre and compare notes, among the young trees and the new grafts; as they moved from Pear tree to Pear tree, from row to row, and from path to path, even long after the sound of their voices was lost by distance, it was not difficult to perceive by the gesticulations, or the delays or rapid movements, the earnest interest with which they discussed their favorite and engrossing science. My operations of shaving and dressing were so prolonged by the time consumed in watching these friendly pomologists, that I did not join them until it was the hour for their early breakfast. But I must not run ahead of my subject; I desire to introduce my reader to the kind family, and the pleasant home, in which I invite him to sojourn with me for a brief space.

The head of the house, a gentleman of wonderful activity, seems something over fifty; bright, energetic and accomplished, he came from Europe about three years since with his wife and two sons to settle in the United States. He had already done much for the Science of Pomology in his own country, and was in the enjoyment of its fruits both by the acknowledged merits ascribed to his labors in Pomological literature, and the vast amount of new and valuable varieties due to him, in the production of Pears. But the limits of a continental estate became too narrow for his enlarged views, and his free spirit seemed cramped in a country where the statistics reminded him of a density of population necessarily affording but little "elbow-room" for each man. This motive was sufficient to bring to our country of

endless acres, our good host the Pomologist—a host in himself, in more ways than one; and yet he may naturally have had other objects associated with the prospects of his two sons, who have devoted themselves to separate branches of horticulture —the elder to Agriculture, and the younger to the garden and Pomology. The united efforts of father and sons, (united in the best and strongest sense of the term), are devoted to the cultivation of a fine farm of about three hundred acres, situated upon an extended and beautiful plain, of good light soil, within a quarter of a mile, or little more, of a mountain range, and which charmingly relieves the landscape with its varied shades of light, as the sun brightens its prominent points, or these cast their shadows of darker hue upon the vallies.

I cannot pretend to do justice, by description, to the farming department of our host's estate; I was kept too busy and too much interested for two days in the gardens, to be able to go over the fields; but I am informed that the wheat and oats prosper in the best sense,—that they are habitually sold for seed grain at the highest price, and the crops of field roots have been the wonder of the neighborhood. The gardens and nurseries of young trees, as I have said, were the objects of my particular attention and concern, and from the early breakfast hour until noon, I walked beside the two Pomologists listening eagerly to their free interchange of facts and opinions, as they successively reached the long straight lines of young Pear trees; then the nursery of seedlings, and the new grafts added to the number-bearers, so excite my wonder in their variety and amount, as to make me fear a suspicion of exaggeration should I attempt to tell of them. But it may give some idea of our host's labors to state, that this spring, the fourth, I think, since he began his fruit gardens, he has grafted with his own hand over two thousand young trees; that he is the originator of many hundreds of new varieties of Pears, and that the most rigid system and care is observed in every detail of labeling—registering—pruning and cultivating the orchards. And while refering to this division of our distinguished Pomologist's industry, I must not omit to mention the quarto volumes in which he has so beautifully and accurately painted, in water colors, all the varieties of fruit he has originated. These volumes give evidence of no ordinary genius as an artist, and especially do they prove most patient perseverance in the real business of book-making—for these are ponderous books of which the letter press and beautiful illustrations are the work of a single man—receiving no aid from printer, publisher or machinery.

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Our host (I have christened him the Prince of Pomologists), talks about his trees as most men do of their children, or as good physicians do of their favorite patients; he almost seems to talk *to* them, for he sometimes says—"I do this for *him* (the tree), now he must do something for himself—it is *his* business." And then the expression of his countenance varies with the associations, more or less interesting, connected with his *tree families*, and denotes as much concern and confidence in certain qualities that should belong to them, as though these were moral principles affecting the welfare or happiness of his whole generation.

And now with the warm noon-day sun, and the courtesy of a kindly heart towards guests, we come into the ample drawing-rooms; here the father and sons are soon ready with piano—flute—violin or violincello, to give us delightful trios—music of the best composers, and executed as such authors desire their compositions should be. The 'Prince of Pomologists' is still the leader in this family concert, for he was chief instructor of his sons, and is equally able to perform on any of the instruments. To use his good wife's expression—"*il est musicien dans l'ame*"—, and surely he is no less a painter and Pomologist "*dans l'ame*;" such men do all things with their whole soul.

The excellent lady whom I have just quoted, devotes herself to the *true* "*woman's rights*," in the good management of her household; and, besides this, takes great interest in the poultry. I should be deficient in good taste, as well as gratitude, did I not proclaim the entire success with which she accomplishes the first of the womanly prerogatives—and should it be your good fortune, gentle reader, to sleep beneath the hospitable roof to which I have reference, and to sit at the family table, you will have delightful evidences of the comforts that belong to the exercise of "woman's rights," as they are there understood; and even from the cellar you will receive proofs, in "St. Peray" and old "Steine," that the good things of this world are in the very best hands, when gentle woman rules her household.

I have yet many remaining proofs that my title of "the happy Pomologist" is a just and appropriate one, but in nothing does it more strongly appear than in the generous benevolence and philanthropy that fill to overflowing the heart of our host. Without precisely knowing the ultimate designs of this distinguished gentleman, I do know that pecuniary gain or commercial profits form no part of his objects in life; that he only desires to do good by improving the fruits of the country, and finds his own happiness in constant occupation; or, to quote one of his own impulsive, enthusiastic expressions, "*I will make the best Pears as cheap and common as the poorest that all may enjoy them.*" Hence he takes pleasure in giving his grafts freely,

wherever they are wanted; and to his friends he is even too liberal in giving the best varieties of his trees.

The spirits of "VAN MONS" and of "ESPEREN," the friends and instructors of our Pomologist, may readily be imagined as watching over his efforts in their science with pride and delight; and those who have opportunity of knowing him, and of seeing his estate, will not fail to regard his coming to this country as a national blessing. As one of these I may, at least, honestly pray that the useful life of our excellent host be prolonged to a good old age, in the continued enjoyment of his trees — his music — and his happy home.

[We can heartily join in every thing here said of the "Happy Pomologist," who unites in his own person the accomplished gentleman and the happy enthusiast; a day passed with him will long be remembered, and we may add with some feeling of pride that he will give every aid in his power to "*The Horticulturist.*"—ED.]

WELLINGTONIA GIGANTEA.*

Gigantic Wellingtonia.

OF late, says *Curtis' Botanical Magazine*, the curiosity of the public, as well as of the Botanist, has been excited by a discovery of Mr. WILLIAM LOBB, of a coniferous tree in the interior of California of a most gigantic size, measuring three hundred feet and more in height, and from ten to twenty feet in the diameter (thirty or sixty feet in circumference) of its trunk. DOUGLASS' *Pinus Lambertiana* of the Oregon measured two-thirds of that height, and he described a species of *Taxodium* two hundred and seventy feet long, and thirty-two feet round at three feet above the ground. Some few he saw three hundred feet high.

Happily Mr. LOBB sent home branches of his gigantic Conifer, bearing foliage and cones, together with the following account of it, which appeared in the *Gardeners' Chronicle* and *Curtis' Magazine;* a drawing forms the subject of the present illustration of the *Horticulturist.*

Mr. LOBB says, "This magnificent tree, from its extraordinary height and large dimensions, may be termed the monarch of the California forest. It inhabits a solitary district on the elevated slopes of the Sierra Nevada, near the head-waters of the Stanislau and San Antonio rivers, in latitude 38° N., longitude 129° W., at an elevation of five thousand feet from the level of the sea. From eighty to ninety trees exist, all within the circuit of a mile; and these varying from two hundred and fifty to three hundred and twenty feet in height, and from ten to twenty feet in the diameter of the trunk. Their manner of growth is much like that of the *Sequoih* (Taxodium) *Sempervirens;* some are solitary, some are in pairs, and not unfrequently stand three or four together. A tree recently felled measured about three hundred feet in length, with a diameter, including bark, twenty-nine feet two

*See Frontispiece.

inches at five feet from the ground. The bark is of a pale cinnamon color, and from twelve to fifteen inches in thickness. The branchlets are round, somewhat pendent, and resembling a Cypress or Juniper. The leaves are pale grass-green; those of the young trees are spreading, with a sharp acuminate point. The cones are about two and a half inches long, and two inches across the thickest part. The trunk of the tree in question was perfectly solid from the sap-wood to the centre, and, judging by the number of eccentric rings, its age has been estimated at three thousand years. The wood is light, soft, and of a reddish color, like Redwood (or *Taxodium Sempervirens*)."

Of this vegetable monster, a section was exhibited at Philadelphia about two years since. Dr. LINDLEY says, "It must have been a little plant when SAMPSON was slaying his Philistines, or PARIS running away with HELEN, or ÆNEAS carrying off good PATER ANCHISES on his filial shoulders." Some seeds kindly sent to us, and planted in the green-house, have unfortunately not vegetated; but several individuals have been more fortunate, and plants may now be bought in the United States,* where they will no doubt become as common as Deodars. Dr. LINDLEY has determined that the tree belongs to a perfectly new genus, with foliage not very dissimilar to that of the Juniper's, yet with true cones, or *stroboli*, as large as those of the Scotch Fir, but in structure very much resembling those of the Japan genus *Sciadopitus* of Siebold and Zuccari, Flora of Japan, ii. p. l. t. 102,—which, however, has leaves the longest (four or five inches long, and the broadest more than a line in width,) of any genus in the northern hemisphere; and so arranged in whorls that each whorl is umbraculate, whence the generic name.

THE MAPLE AND ITS ENEMY.

BY A LADY.

FEW trees in our varied forest claim more deservedly our admiration than the Maples, for few have so much merit, or repay our care more satisfactorily. Unexceptionable as shade trees in the highway or grove, and beautiful in their gorgeous hues in autumn, the American turns to them with pride and pleasure, and unhesitatingly plants a Maple wherever a roof is to be sheltered. Hitherto the Maples have been free from the ravages of insects; but an enemy has now appeared that will mar their beauty, unless checked by the careful hand of the tree lover, who may, if warned in time, restrain its further progress, at least upon his own grounds, and perhaps his good example may induce the public to take care of the shade trees in our streets, and by a timely pruning, rid the trees of their enemy.

The *Dryocampa rubicunda*, heretofore known to science only in the winged state, proves to be the parent of a green worm, that appeared in numbers on many of the

* As this is the most gigantic tree of our country it has been suggested to call it *Washingtonia Gigantea*, but we fear the name of *Wellingtonia* having been appropriated by the discoverer, we shall have to submit, and be contented with our large share of the California gold found at its foot.

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number of the label. But I must not attempt further particulars in reference to the character of the gardens, or the scientific skill with which they are managed. I have headed my pages with "the *happy* Pomologist," and in order to make good its meaning and its truth, I must tell of inward as well as outward influences—of the glowing enthusiasm with which our host pursues his favorite science—his hobby; and I must follow him from the garden to the family circle, and even somewhat into his worldly position.

Our host (I have christened him the Prince of Pomologists), talks about his trees as most men do of their children, or as good physicians do of their favorite patients; he almost seems to talk *to* them, for he sometimes says—"I do this for *him* (the tree), now he must do something for himself—it is *his* business." And then the expression of his countenance varies with the associations, more or less interesting, connected with his *tree families*, and denotes as much concern and confidence in certain qualities that should belong to them, as though these were moral principles affecting the welfare or happiness of his whole generation.

And now with the warm noon-day sun, and the courtesy of a kindly heart towards guests, we come into the ample drawing-rooms; here the father and sons are soon ready with piano—flute—violin or violincello, to give us delightful trios—music of the best composers, and executed as such authors desire their compositions should be. The 'Prince of Pomologists' is still the leader in this family concert, for he was chief instructor of his sons, and is equally able to perform on any of the instruments. To use his good wife's expression—"*il est musicien dans l'ame*"—, and surely he is no less a painter and Pomologist "*dans l'ame*;" such men do all things with their whole soul.

The excellent lady whom I have just quoted, devotes herself to the *true* "*woman's rights*," in the good management of her household; and, besides this, takes great interest in the poultry. I should be deficient in good taste, as well as gratitude, did I not proclaim the entire success with which she accomplishes the first of the womanly prerogatives—and should it be your good fortune, gentle reader, to sleep beneath the hospitable roof to which I have reference, and to sit at the family table, you will have delightful evidences of the comforts that belong to the exercise of "woman's rights," as they are there understood; and even from the cellar you will receive proofs, in "St. Peray" and old "Steine," that the good things of this world are in the very best hands, when gentle woman rules her household.

I have yet many remaining proofs that my title of "the happy Pomologist" is a just and appropriate one, but in nothing does it more strongly appear than in the generous benevolence and philanthropy that fill to overflowing the heart of our host. Without precisely knowing the ultimate designs of this distinguished gentleman, I do know that pecuniary gain or commercial profits form no part of his objects in life; that he only desires to do good by improving the fruits of the country, and finds his own happiness in constant occupation; or, to quote one of his own impulsive, enthusiastic expressions, "*I will make the best Pears as cheap and common as the poorest that all may enjoy them.*" Hence he takes pleasure in giving his grafts freely,

wherever they are wanted; and to his friends he is even too liberal in giving the best varieties of his trees.

The spirits of "VAN MONS" and of "ESPEREN," the friends and instructors of our Pomologist, may readily be imagined as watching over his efforts in their science with pride and delight; and those who have opportunity of knowing him, and of seeing his estate, will not fail to regard his coming to this country as a national blessing. As one of these I may, at least, honestly pray that the useful life of our excellent host be prolonged to a good old age, in the continued enjoyment of his trees — his music — and his happy home.

[We can heartily join in every thing here said of the "Happy Pomologist," who unites in his own person the accomplished gentleman and the happy enthusiast; a day passed with him will long be remembered, and we may add with some feeling of pride that he will give every aid in his power to "*The Horticulturist.*"—ED.]

WELLINGTONIA GIGANTEA.*

Gigantic Wellingtonia.

OF late, says *Curtis' Botanical Magazine*, the curiosity of the public, as well as of the Botanist, has been excited by a discovery of Mr. WILLIAM LOBB, of a coniferous tree in the interior of California of a most gigantic size, measuring three hundred feet and more in height, and from ten to twenty feet in the diameter (thirty or sixty feet in circumference) of its trunk. DOUGLASS' *Pinus Lambertiana* of the Oregon measured two-thirds of that height, and he described a species of *Taxodium* two hundred and seventy feet long, and thirty-two feet round at three feet above the ground. Some few he saw three hundred feet high.

Happily Mr. LOBB sent home branches of his gigantic Conifer, bearing foliage and cones, together with the following account of it, which appeared in the *Gardeners' Chronicle* and *Curtis' Magazine;* a drawing forms the subject of the present illustration of the *Horticulturist.*

Mr. LOBB says, "This magnificent tree, from its extraordinary height and large dimensions, may be termed the monarch of the California forest. It inhabits a solitary district on the elevated slopes of the Sierra Nevada, near the head-waters of the Stanislau and San Antonio rivers, in latitude 38° N., longitude 129° W., at an elevation of five thousand feet from the level of the sea. From eighty to ninety trees exist, all within the circuit of a mile; and these varying from two hundred and fifty to three hundred and twenty feet in height, and from ten to twenty feet in the diameter of the trunk. Their manner of growth is much like that of the *Sequoih* (Taxodium) *Sempervirens;* some are solitary, some are in pairs, and not unfrequently stand three or four together. A tree recently felled measured about three hundred feet in length, with a diameter, including bark, twenty-nine feet two

*See Frontispiece.

inches at five feet from the ground. The bark is of a pale cinnamon color, and from twelve to fifteen inches in thickness. The branchlets are round, somewhat pendent, and resembling a Cypress or Juniper. The leaves are pale grass-green; those of the young trees are spreading, with a sharp acuminate point. The cones are about two and a half inches long, and two inches across the thickest part. The trunk of the tree in question was perfectly solid from the sap-wood to the centre, and, judging by the number of eccentric rings, its age has been estimated at three thousand years. The wood is light, soft, and of a reddish color, like Redwood (or *Taxodium Sempervirens*)."

Of this vegetable monster, a section was exhibited at Philadelphia about two years since. Dr. LINDLEY says, "It must have been a little plant when SAMPSON was slaying his Philistines, or PARIS running away with HELEN, or ÆNEAS carrying off good PATER ANCHISES on his filial shoulders." Some seeds kindly sent to us, and planted in the green-house, have unfortunately not vegetated; but several individuals have been more fortunate, and plants may now be bought in the United States,* where they will no doubt become as common as Deodars. Dr. LINDLEY has determined that the tree belongs to a perfectly new genus, with foliage not very dissimilar to that of the Juniper's, yet with true cones, or *stroboli*, as large as those of the Scotch Fir, but in structure very much resembling those of the Japan genus *Sciadopitus* of Siebold and Zuccari, Flora of Japan, ii. p. l. t. 102, — which, however, has leaves the longest (four or five inches long, and the broadest more than a line in width,) of any genus in the northern hemisphere; and so arranged in whorls that each whorl is umbraculate, whence the generic name.

THE MAPLE AND ITS ENEMY.

BY A LADY.

FEW trees in our varied forest claim more deservedly our admiration than the Maples, for few have so much merit, or repay our care more satisfactorily. Unexceptionable as shade trees in the highway or grove, and beautiful in their gorgeous hues in autumn, the American turns to them with pride and pleasure, and unhesitatingly plants a Maple wherever a roof is to be sheltered. Hitherto the Maples have been free from the ravages of insects; but an enemy has now appeared that will mar their beauty, unless checked by the careful hand of the tree lover, who may, if warned in time, restrain its further progress, at least upon his own grounds, and perhaps his good example may induce the public to take care of the shade trees in our streets, and by a timely pruning, rid the trees of their enemy.

The *Dryocampa rubicunda*, heretofore known to science only in the winged state, proves to be the parent of a green worm, that appeared in numbers on many of the

* As this is the most gigantic tree of our country it has been suggested to call it *Washingtonia Gigantea*, but we fear the name of *Wellingtonia* having been appropriated by the discoverer, we shall have to submit, and be contented with our large share of the California gold found at its foot.

Maples near Philadelphia, in the summer of 1854, and most frequently on that valuable species *Acer dasycarpum*.

Early in June, a careful observer may see groups of insect's eggs glued to the underside of the leaves of the Maple, which soon hatch; the worms are without hair, and of a pale green color, with fine white lines extending the whole length of the worm, interrupted by the deep rings that mark the segments of the body; two black hair like spires grow, one on either side of the head, and when fully grown, the worms measure two inches in length; they feed in company, devouring the entire leaf, even to the naked rib and foot stalk; they feed at first on the tender leaves on the end of the branches, but as they grow older proceed downwards, until all the foliage on the branch is entirely consumed. They continue to feed in a family group until they have attained their full size, when they separate, and become very active for some days, crawling about without any apparent object, but in reality to accomplish a two-fold purpose,—first the loosening of their outer skins, which are to be cast off before their final change, and secondly to find a suitable place to enter the ground, where they are to pass their chrysalite existence. When their active exertions have sufficiently loosened the outer skin to make it easy to cast it off, they enter the ground, and with muscular strength, that appears Herculean when compared with vertebrated animals, they make their way through the solid earth, leaving in their progress their outer skins, now useless to them; then, in common with the rest of their tribe, they throw out a liquid, and at the same time move their bodies rapidly around, forming in the moistened earth a commodious cell, with smoothly plastered walls, impervious to frost or moisture. There they lie, secure from all external injury, until the following spring, when from the last week in May to the middle of June, they rise from their death-like slumber, and appear in their perfect forms—moths of great beauty, clothed in down of the most delicate shades of pink and sulphur colors.

Now in this attractive form, we shrink from injuring a creature so beautiful; but the syren allures only to destroy, for she is on her way, insiduously to place the germs of blight on our fairest trees, and, unsuspected by her admirers, she is the mother of the hateful brood of green worms, that in July and August deform the Maples by their presence, and from which we shrink with disgust as they crawl across our path, or drop upon us from the trees when least we expect such arrogance.

To protect these most valued shade trees from this disgusting pest, requires less care than is generally necessary when an insect tribe makes its appearance. The habit of feeding in numbers together soon exposes the family of the *D. rubicunda* to observation, and their situation on the ends of the branches, renders it easy for the gardener to take them off with a tree-pruner before they begin to wander; but after that time all care is vain, as they elude our search and disappear in the ground, there to remain until they rise again in the following spring to renew their ravages.

PLANTING TREES IN ANTICIPATION OF A DEMAND FOR THE WOOD.

BY THE EDITOR.

WITH a liberality, if not a recklessness, which, while it was natural in a country originally well wooded, may hereafter be considered culpable, we Americans have omitted a simple and pleasing duty, that our immediate successors will have great cause to complain of. We have thrown away, for want of forecast, opportunities which it may not now be too late to remedy, unless it should be found impossible to convince those interested how easily they may repair the error. We have destroyed with the axe and fire, under an impression that coal would supply our future wants, and already our artizans are obliged to send to distant parts at a greatly increased cost for suitable woods; it will be a sufficient illustration that might be greatly extended, if we adduce the fact that Cabinet Makers already draw their supplies of Walnut wood for the Atlantic cities from the shores of the Ohio and more distant points,* where the same process of destruction is in progress; that the Whip Makers and others find it very difficult to procure a supply of small Hickory limbs; and, more important, that the sleepers of Railroad tracks, and good lumber generally have become a most costly article.

We are too apt to say that posterity has done nothing for us, and, therefore, we will do nothing for posterity; but we must recollect that it is to our successors we are to look for the patrons of Railroads, and that it is for a future benefit and for posterity we mainly invest our capital in these expensive undertakings.

The first directors of Railroads were naturally too intent on making immediate returns, and too much pressed with other duties, to take into consideration the great results that might be produced in a few years by planting a few nuts, seeds, or trees, on their boundaries, to admit into their calculations this immense source of profit. If the Locust, White Oak, Chesnut, Hickory, and Larch, had been planted liberally on the sides of the embankments, and canals had been similarly treated; if the borders of our turnpikes and plank roads had now growing upon them trees producing the most useful woods, planted at the time of the construction of these vast lines of intercommunication, we as a people should have been the richer by many millions of dollars. Now nothing of value is produced upon the sites we have mentioned.

State governments should long since have seen to this. No charter for a public road or canal of any kind should ever have been granted in America without the obligation that all the borders should be planted with suitable trees, and that

*In our edition of *Michaux's North American Sylva*; vol. 1, page 68, will be found the following note:—"The demand for Walnut wood in the Atlantic cities, and the want of attention to its cultivation, have made it necessary for the cabinet makers, &c., to import from the West the greater portion of their supplies. This resource must fail in times, and the wood may not improbably become nearly as costly as Mahogany, which it resembles in many of its properties."

plantation maintained, or the charter become void. In the Southern States here would have been an ample provision for Live Oak timber—in the Northern for White Oak, Locust, &c., for national or private purposes. We need not say that the government itself could easily have made the proviso that the timber should belong to itself, or the half of it; nor need we urge the additional comfort of the traveller, though that is an important consideration which will have to be more studied than it has heretofore been, in various ways; it is sufficient to enforce the necessity of producing valuable woods for future use, in a national point of view, and to urge upon incorporated companies the large profit that would result.

And first of these profits at a rough calculation. By planting the acorns or seeds themselves, scarcely any cost would be incurred; but it can be shown by practical men, that at present prices, a mile of seedling Oaks one year old, planted ten feet apart, which would give for both sides of a road, one mile in length, one thousand and fifty-six trees, could be bought and planted for twenty dollars, and Locust the same, if not for less. At a low estimate, we will assume that these trees in twenty years would be worth, on an average two dollars each, or two thousand one hundred and twelve dollars, (ornamental trees produce a much greater result in five to eight years). If our route from Philadelphia to Pittsburgh, with its branches, is four hundred miles in length, and was planted on both sides, say eight hundred miles, the value produced where nothing of value is now growing would, if we are correct, yield eight hundred and fifty thousand dollars! Apply this estimate to the whole length of Railroads, canals, and turnpikes, in the Union, and the result is too startling for figures. Let any one make a similar calculation for the finest fruits to be sent by the rail to our principal cities, and the figures will be still more surprising, while the profit would be infinitely sooner realized; suffice it that we have made it evident that we may have timber at every man's door sufficient for his increasing wants, instead of being dependent on Canada as we now are. When Canada has exhausted her supply, which she must some time do, where are we to go?

We have taken as samples a few trees of known mercantile value, but it is not necessary to confine the selection to these; we would even recommend varying the kinds very considerably, and changing their character according to climate and the soil, and the wants of the State wherein the line was constructed. The per centage of profit is sufficient to touch stockholders in a point that has some scarified spots—the pocket; but if this inducement fails, we would recommend the formation in every State of new companies, with charters, or privileges from the companies already formed, requiring the performance of this cheap and agreeable duty. For ourselves, we should prefer taking stock in the "Tree Company" to that of the road itself, and at the same time we should be doing our fellow men an immense service. Ornamental trees interspersed would add immensely to the beauty of the route, be very profitable, and would give to passengers, who are sadly in want of resources for occupation, something to study and talk about, with examples for home adoption.

The railroad or canal could deliver the matured woods at given points where most required, very much cheaper than by the process now employed to haul them from

inland points where nature planted the nut. How often do we see ship and other timber brought from great distances by horse power, or the *lumbering* process during freshets, and subjected to great injuries and losses.

In France and Switzerland, and some other countries, government long since, with paternal foresight, took this matter under consideration; and the turnpikes and canals now afford an abundance of timber for ship-building and other purposes, distributed on the routes where it can easily be transported. As you approach the latter country from France, over the Jura, you perceive that the roads are bordered (and, of course, shaded,) with fine old trees of the English Walnut (*Juglans regia*); thousands of sacks of nuts are exported from thence, via the Mediterranean, to this and other countries, forming a large source of revenue at our expense. The trees and fruit are protected by law; different customs as to ownership of the produce prevail in different communities, but in all a source of wealth is evident.

In America, our turnpikes occupy much greater width than most of those in Europe; lavish waste in this respect marks our legislation, as it does in so many enterprises, public and private. It is also common to have more thoroughfares than are required. Now that the charters are obtained, it is not likely that any of the width will be abandoned, but this can surely be usefully employed.

It may be urged at first view, that trees on railroad borders or banks would be in the way of the cars; but that it is not so is evidenced on very many embankments, where, in the newly moved earth, worthless wood has sprung up from seeds of neighboring trees, and is suffered to grow, sometimes having already attained a merchantable size, but usurping the place of enduring materials for commerce, *or for the repair of the road itself.* Sometimes the bank is so high as to extend into the neighboring farmer's field; he finds it too steep to plough, but he might convert it to tree culture.

The subject is a fruitful one, and perhaps we have said enough to awaken attention in the proper quarters. We are all rushing ahead with railroad speed; it is not amiss to stop the cars occasionally, and look around at the nakedness of the land. It cannot be forgotten by recent travellers in Germany, that in some places the very near vicinity of the track of the locomotive is cultivated, by the look-out men, with cabbages, &c., to eke out their scanty salaries; and who can but remember the beauty of the station-house grounds, planted and adorned with trees and flowers? The station at Brunswick, in Hanover, with its numerous beautiful specimens of *Sophora pendula*, is worth going to see.

Our duty, under the caption of this article, would lead us to read government a lecture on the necessity of making some provision for the navy yards in the matter of ship timber, and even for tar and rosin; but we have already extended these remarks beyond our original intention, by pointing out a practicable scheme of economy and profit for private incorporations, from whose sagacity more may be counted on than upon our ever shifting political Governors, who we have learned to expect will look but little beyond their respective terms of salary and office. When will the time of foresight and paternal government begin?

It is not, however, private incorporations nor government alone, that should

anticipate a great demand and profit by timely provision. The father of the late Duke of Athol lived to see a ship launched that was built out of the Larch wood planted by himself on his naked Scotch hills There are thousands of sites in this country where the larch and other useful woods would yield their thousand per cent. upon a very slight outlay. Mountain sides should be enriched with hard wooded trees; Larch plantations have proved extremely profitable.*

A father sometimes buys from an annuity company, for a small sum, a large amount predicated upon an infant's attaining majority—let other fathers plant trees and bequeath the result in the same manner; in the one case there is nothing *produced* for the benefit of the country—in the other there is a sure capital created, which is growing faster than the child; and if the latter dies, the trees survive for a successor, while the sum for the annuity is lost to the family. A plantation of Locust trees, costing five hundred dollars at the birth of an infant, on soil of moderate price, would be equal to more than ten thousand dollars at its majority.

NOTICES OF TREES.

NO. 1.

UNDER this head it is proposed to give occasionally a sketch of such trees as may come under the writer's notice, that are any way remarkable in size, beauty, or rarity, with such remarks as may generally interest. As knowledge, like charity, should always begin at home, the nearest interesting collection of trees is first taken in order,—that of the Messrs. JOHNSON, Germantown, Penna.

These trees were planted by the father of the present proprietors, between the years 1805 and 1812; and to those who imagine that they have to wait what they term "a whole life-time," in order to enjoy the fruits of their labors,—shade, shelter, and retirement,—they have afforded for a long time an excellent example of what a bountiful reward a few short years will heap upon them. The handsomest specimen on the grounds is one of the European Silver Fir (*Picea pectinata*), and it would probably be not too much to assert that it is the most beautiful tree of the kind in the United States. Its present height is ninety-six feet, and its circumference is nine feet four inches at three feet from the ground. Near the ground line it is eleven feet and nine inches, and the whole trunk perfectly straight, and clothed with fine healthy branches to its very base.

* The last number of the *London Quaterly Review*, which has come to hand since this article was penned, says:—"It appears that the Larch yields the greatest profit of any description of tree, and in the shortest time. It is proverbial, in fact, that Larch will buy a horse before Oak will furnish the saddle. The timber is said to be superior to foreign Fir in the following respects: It is clearer of knots; more durable, even the dead branches being never found rotten; it is much less liable to shrink or split; it may be seasoned in a much shorter time; it is tougher, of a better color, and susceptible of a polish superior to that of the finest Mahogany, and bears exposure to climate and moisture for many years without undergoing any change. It has, however, been found open to objection for ship building."

PICEA PECTINATA OR SILVER FIR.

It is believed to be one of four trees first introduced into the United States by the late Mr. PRINCE, of Flushing, another of which was planted, and still remains,

at BARTRAM'S. It would be interesting to know the fate of the others. Some of the gentlemen still connected with that establishment might be able to favor the readers of the *Horticulturist* with some account of them. The Silver Fir is deservedly coming into greater note than it has heretofore enjoyed. It is superior in beauty and rapidity of growth to many more popular novelties. Its growth is rather slow while young, and at that stage of its existence is apt to have its leading shoot and terminal bud killed or injured in severe winters. This injury is entirely prevented by wrapping the part in danger with cotton wadding early in winter, taking it off again early in spring; a thin covering will suffice,—just enough to keep the sun from thawing suddenly the frozen shoots.

Near to the Silver Fir is a very handsome specimen of the Snow Drop or Silver Bell tree (*Halesia tetraptera*), a perfect snow storm of blossoms, which, at this date (May 18th), are rather past their best. This beautiful tree has not one objectionable feature, a character possessed by few others; and while it will grow as large as an Apple tree is so accommodating in its disposition as not only to thrive in any dry soil, but also to commence blooming when only a few feet high.

Another tree, which, with me, has always been one of the most interesting specimens on the grounds, is the Bladdernut (*Staphylea trifolia*). This, which in botanical works is described as a shrub "six to twelve feet high," and which I have never met in a wild state in any other condition than a thick bush, here reaches the height of about twenty-five feet, and has a stem two feet three inches in circumference. At the present time its large round head is a mass of greenish white, heath-like, sweet-scented blossoms, and though its period of blossoming is of short duration, is very well worthy of claiming for the plant a place in every collection. It has one fault—a great fault—but one common to many other very handsome ornamental trees; namely, a great propensity to throw up suckers, so much so as totally to incapacitate it from enjoying the privilege of being a lawn tree. Its proper place is the *wilderness*; and as no garden of any pretensions ought to be without this interesting feature of a landscape, no garden should be without the *Staphylea*.

The garden is so shaded by Pines and Spruces, which keep the atmosphere beneath them humid and the soil so cool, that large masses of the Mountain Laurel (*Rhododendron maximum*) thrive in remarkable luxuriance under their branches. Some of their leaves equal in size those of the English Laurel (*Prunus lauro-cerasus*). In the deepest shade, the Periwinkle (*Vinca major*) luxuriates in evergreen splendor the whole year, where grass would not live a month,—an excellent plant for such situations. A plant of the *aucuba Japonica*, that has been out many a year, comes out of last winter's struggle unscathed, showing how much situation and circumstances have to do with the hardiness of these plants. A large Canadian Yew (*Taxus Canadensis*), though indigenous ten miles from these grounds, has had many of its leaves very much damaged; as indeed the Wood Laurel (*Kalmia latifolia*), a much commoner plant, has in many instances. The habit of this Yew is to trail rather than to grow erect, and though probably covering a circle fifty feet in circumference, is not more than six feet in its highest point.

One of the finest Catalpas (*Catalpa bignonoides*) is also here; its trunk at three

feet from the ground is ten feet nine inches in circumference, and its large round head every year produces a mass of gorgeous flowers equalled by few things of its season, except the Paulownia. It is unfortunately a very late tree to put forth its leaves in spring, and loses them again very early in the fall. Its beautiful flowers and tortuous branches are its chief claims to the arboriculturist's notice.

There are many other very interesting trees on these grounds, well repaying a visit from a lover of them, but not calling for special notice here; except, perhaps, a magnificent *White Fringe* tree (*Chionanthus virginica*), and a large gold variegated leaved Box tree. The former at the base, where its numerous branches diverge, is four feet and a half in circumference, and the branches themselves have a radius of fifteen feet. It is of the variety that never perfects its seeds, but is most profuse in the expansion of its floral treasures. M.

[We are greatly indebted to M. for taking up the subject he has chosen; he is particularly well qualified for the task. The European Silver Fir has long been a pet with us; in general appearance, to an uneducated eye, it resembles most the Balm of Gilead — now generally abandoned by those who know its worthlessness after a few years of beauty. The Silver Fir retains its lower branches perfectly, is one of nature's most glorious productions, and especially beautiful in May and June with its new and superbly bright green growth. After it is established the leader is uninjured, and it grows quite rapidly, though slow in the first two or three years after transplanting. Were we compelled to choose but one evergreen, it is more than probable the Picea pectinata would be our selection.

M. has scarcely done full justice to the grounds where this tree is found; they were planted with great judgment and taste, and are maintained in their delightful repose with pious care snd elegance.—Ed.]

CULTURE OF SUCCORY AS A WINTER SALAD.

While we see around us abundant evidence of the fostering care of Horticultural Societies in the improved appearance of our grounds, and the increasing attention to the cultivation of the finest kinds of fruits, we regret that so little has been done to improve culinary vegetables. Our zealous amateurs and enterprising commercial gardeners keep us well posted up in the novelties suitable for the pleasure ground and flower garden. We have select lists of fruits adapted to every section of country, presented to us in the valuable reports of the Pomological Society. Greenhouse plants and their culture, have prominent positions in our gardening periodicals. But we look in vain for an essay on Cabbage culture, or even for a reliable and respectable list of the best varieties of vegetables. We think that one of the principal objects of Horticultural Societies ought to be the improvement of edible vegetables, and although this department of Horticulture is by no means neglected, still it occupies a subordinate position in the schedules of most societies. Many of our cultivated vegetables have run into numerous varieties, some of them quite inferior

and unworthy of cultivation; we hope some one of our competent vegetable growers will favor the readers of the Horticulturist with a select list of the most esteemed sorts.

This is a long preface to a few remarks we have to make relative to the introduction of a new ingredient for a winter salad, which can be had in profusion, at trifling cost, within the reach of every one, and pronounced by connoisseurs in these matters as being a very superior article. It consists of the blanched leaves of Succory or Wild Endive, now become a common and in many cases a troublesome weed in the fields and road sides in this neighborhood.

The Succory, Chiccory, or wild Endive, (*Cichorium Intybus*), has long been cultivated on the continent of Europe, the leaves as food for cattle, and the roots cut in pieces, dried and ground, mixed with coffee; the leaves blanched, that is, grown in the dark, is a favorite salad ingredient in France, known as *Barbe de Capucin*, and its use in this latter form we desire to make more extensively known, as we feel assured it will be appreciated by all who like a good salad in winter.

Summer Treatment.—To procure good plants, seeds must be sown annually about the first or second week in July, if sown much earlier they will run to seed, which materially deteriorates the roots for the purpose in question. The soil being deeply spaded and moderately enriched, sow the seeds in shallow drills eighteen inches apart. As they proceed in growth thin out the plants to stand ten or twelve inches apart; the usual operations of weeding and hoeing must not be neglected, and should the weather prove very dry the soil between the rows may be forked over to keep it loose and mellow, and preserve an uninterrupted growth, that the plants may gain strength without running to seed. Towards the end of October, the plants should be carefully lifted, and all the leaves cut off; it is now ready for its winter quarters.

Winter Treatment.—To those familiar with gardening operations, it would be sufficient to state that the roots are now gently excited to growth, and the leaves blanched; but to many it may be necessary to enter slightly into details. Those who are in possession of a greenhouse, will find the floor underneath the plant stage, an admirable situation for its growth, while those who have no such convenience, will find a warm dry cellar equally suitable. Procure some common inch boards and construct a rough box similar to a garden frame. The sides should be eighteen inches deep all round. Fill in nine or ten inches of soil, tramp it firm, and plant the roots in rows nine inches apart all over the surface. Water must be carefully applied; very little will suffice, and none until the plants are growing freely. The box should be kept constantly covered with boards; unless light is completely excluded, the blanching operation is imperfect.

In gathering the leaves, those on the outside should be pulled singly off. Cutting with a knife is liable to injure the heart which should not be disturbed. A frame six feet by four, will afford a daily salad for nine or twelve weeks, sufficient for any ordinary family.

In order to save seeds a few roots should be left out in the fall, or the best planted out of the box in spring; the plant is a hardy perennial and seeds profusely.

THE CATAWISSA RASPBERRRY.

BY JOSHUA PEIRCE, WASHINGTON, D. C.

THE Catawissa Raspberry is a native variety, entirely new and distinct in its characteristics, in respect to the manner of bearing, and the periods of maturing its fruit, which promise to render it an object of general cultivation. From its appearance and mode of growth, I have no doubt but it is a seedling produced from the common wild Black Raspberry of the country, which grows in great abundance about the regions where it originated; nor can I learn that any other varieties, native or foreign, wild or cultivated, ever grew near the original plant, except, perhaps, the Thimble Berry, (*Rubus purpurea, or odorata,*) which, from the dissimilarity of the two, I do not suppose had any thing to do with its production.

This bountiful gift of nature originated in the grave-yard of the little Quaker Meeting House, in the village of Catawissa, Columbia county, Pennsylvania, situated near the confluence of a stream of the same name with that noble river, the Susquehanna. The history of the discovery is simply as follows: The person who had the care of the meeting house, from whose own lips I received the account, was in the habit of mowing the grass in the grave-yard several times in the course of the year; and on one occasion, some eight or ten years since, observed that a brier, which he had often clipped with his scythe, showed symptons of bearing fruit out of the ordinary season. For this time he spared the plant, bestowing upon it his watchful care; and afterwards removed it to his own humble cottage, to be fostered and cherished, no more to waste its sweetness "on the desert air." From a plant that found its way to this district, I was struck with its peculiarities; and was resolved to devote myself to its cultivation and increase, and am now prepared to describe its properties, so far as two years' experience has allowed opportunities of observation.

The fruit is of medium size, inferior to many of the new popular varieties, but is sufficiently large for all economical purposes. Its color is dark-redish purple, when ripe, and is of a very high flavor. It bears most abundantly throughout the season after the young wood on which it produces its best fruit attains a height of four or five feet, usually beginning to ripen early in August, but sometimes sooner. The fruit is produced on branches continually pushing out from all parts, successively appearing in its various stages of growth, from the blossom to perfect maturity; and often there may be counted more than fifty fruits on a single branch. As the fruit on each branch successively ripens, the later ones diminish in size, but there is no suspension of its fruiting until checked by frost. If protected in doors, it undoubtedly would produce fruit during the winter months.

One great advantage of this fruit over other varieties of the Raspberry is, that if

the stocks should be accidently broken, or cut off, or should be killed by winter frosts, it is all the better for the crop; and if all other fruits should fail from the effects of spring frost, we would have this to rely upon as a substitute during the fall months. Another great advantage is, that from a small space of a few yards of ground a daily desert for a small family would always be at hand, at a time when other Raspberries cannot be had.

[We hope Mr. PIERCE's expectations will be fully realized in this Catawissa Raspberry; time must determine its value. We have entire confidence in his statements, but his experience with it is not quite such as to be conclusive with the public; several instances of supposed perpetual bearers having been found on trial of more than doubtful value. Let us suggest that all new fruits and flowers, candidates for popular favor and high prices, be brought before some competent and disinterested judges, and let them pass upon their merits.

We have suggested the above not to deter purchasers from testing the Catawissa Raspberry, on the contrary we think it worthy of trial; but it is our duty to express apprehensions when we really entertain them.

Hardy Raspberries of good quality are still desiderata, if every kind has been so cut down as they appear to have been in this vicinity. It is to be hoped that the readers of the *Horticulturist* will report their experience in these matters as occasion offers; there is no more important branch of gardening in our country than that which relates to the raising of hardy fruits every way adapted to the climate.—ED.]

HORTICULTURAL TELEGRAPHIC NEWS.

BY AN AMATEUR.

THE increasing interest felt in gardening and fruit operations I have sometimes thought may yet become so great that information thereon may hereafter be considered of as much value as some of the items registered so carefully and at so great expense by our newspapers. Who cares to know that BILL JOHNSON was hung at Tuscumbia jail yesterday at twelve o'clock, or to learn who was present at the terrible scene? Is it important that we should know in such a hurry that Ann Jobson hung herself in Buffalo last evening, or that a lady presented her husband with four babies yesterday at St. Louis.

Let us instead have a Horticultural Telegraph, that will tell us what climate produced the finest Strawberries and from whence we are this year to expect our full supply of fruits. The contrast would be something like the following; let the numerous readers of the *Horticulturist* decide which kind of information would please them most:—

By Magnetic Telegraph for the Daily Newsblower.

TUSCUMBIA, Al., June 10.—Bill Johnson was hung to day in the jail yard at twelve o'clock. The Mayor and his aids with a number of respectable citizens

witnessed the ceremony. The rope broke twice and the sufferer lingered half an hour.

THE CONTRAST.

By Magnetic Telegraph for the Daily Horticulturist.

NORFOLK Va., June 10.—Mr. FRASER, exposed for sale this morning at the Plum st. market eight bushels of fine ripe figs of six of the best varieties, for which he obtained nine dollars a bushel. He contemplates devoting his whole farm to this delicious fruit and next year will supply Boston, New York, Philadelphia, Baltimore and Washington daily.

By Magnetic Telegraph for the Washington Jacobite.

BUFFALO, June 12.—ANN JOBSON hung herself last evening at eight o'clock with a bed cord. The desertion of her lover was no doubt the cause of this rash act.

THE CONTRAST.

By Magnetic Telegraph for the Daily Fruit Grower.

CINCINNATI, Sept. 26.—Never before have we seen such a yield of grapes as are now coming in from the neighboring vineyard. Mr. GREATWORTHY housed before two o'clock with men, women and children, forty tons of Catawba grapes, by means of the new patent Grape picker. The whole will be passed through the mash-tubs before night, except a basket of selected fruit to be forwarded by express to the *Fruit Grower*. We are no longer dependent upon the Rhine or Bordeaux for our beverages, and since spirituous drinks are abolished by public opinion, we see no drunkenness in this State. Wine in moderation is the sole beverage of our happy people.

By Magnetic Telegraph for the Barnumite.

VERA CRUZ, June 13.—A whole flock of woolly horses was shipped for New York this morning, where no doubt they will be appreciated. They were caught by lassos on the plains of Guadalaxara. Accompanying the horses is a baby two weeks old that weighs one hundred and sixty pounds, consigned to a well known house for exhibition. The *Barnumite* will please begin to puff. It is a boy and has three teeth.

THE CONTRAST.

By Magnetic Telegraph for the Apple Gatherer.

BOSTON, June 14.—The prospect for fruit in this region was never better. The improved new varieties of June Pippins were in market to-day, and sold readily for five dollars a peck. The June Bergamot Pear will be fully ripe to-day, and the growers do not despair of so far improving this delicious variety as to have it fit for the table in May. Mr. GRAPPLEAF has Peaches that will be on table next Sunday. The new Lily, as large as a Sombrero, from Australia, bloomed this morning, to the great delight of a refined audience; the opening was announced by the ringing of bells. Persons at a distance should hasten their visits.

This, Mr. Editor, is suppositious, but I suggest to your readers whether the information we sometimes *do* receive is as worthy of a place as that which I have foreshadowed?

[Our correspondent, by a delicate species of irony, fairly hits the newspapers, who are amply able to strike back, if so inclined. We must wait patiently for the public to awaken to our topics; that it is rapidly doing so is evident, in some cases from a want of food, and in others from a love of the subject. There need be no fear that our audience, though few, is "fitting," and numbers already a most intelligent and progressive body of those who are seeking in the true mode for useful and ornamental knowledge.—ED.]

RURAL ARCHITECTURE.

THE following article from *Repton's Landscape Gardening* will answer several inquiries, and we have no doubt will be of interest to our readers generally:

"Notwithstanding the numerous volumes on Grecian architecture, from the days of VITRUVIUS to the present time, to which may be added all that have appeared within the last century on the subject of Gothic antiquities, little or no notice has been taken of the relative effects of the two styles, compared with each other; nor even of those leading principles by which they are to be distinguished, characterized and appropriated to the scenery of nature. It would seem as if the whole science of Grecian architecture consisted in the five orders of columns, and that of Gothic, in pointed arches and notched battlements.

To explain this subject more clearly, and bring it before the eye more distinctly, we will suppose a house of moderate size, not exceeding a front of more than sixty feet, consisting of three stories, and five windows in a line. We will suppose this building to be taken from the hands of the mere joiner and house carpenter, and committed to the architect, to be finished either in the Grecian or the Gothic style.

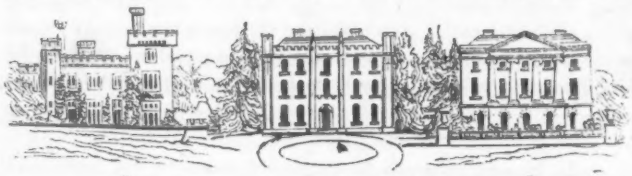


FIG. 1.

For the former, recourse is had to the best specimens and proportions of columns, pilasters, entablatures, pediments, &c., represented in books of architecture, or copied from remains of ancient fragments in Greece, or Italy: but, unfortunately, these all relate to temples or public edifices, and, consequently, to make the dwelling habitable in this climate, modern sash-windows must be added to these sacred forms of remote antiquity. Thus, some Grecian or Roman temple is surprised to find itself transported from the banks of the Ilissus, or the Tiber, to the shores of the Thames, or to the tame margin of a modern stagnant *sheet of water*.

If the Gothic character be preferred, the architect must seek for his models among the fragments of his own country: but again, unfortunately, instead of houses, he can only have recourse to castles, cathedrals, abbeys, and colleges; many

of which have been so mutilated and disfigured by modern repairs, by converting castles into palaces, and changing convents into dwelling-houses, that pointed arches and battlements have become the leading features of modern Gothic buildings. The detail of parts is studied, but the character of the whole is overlooked. No attention is given to that bold and irregular outline, which constitutes the real basis and beauty of the Gothic character; where, instead of one uniform line of roof and front, some parts project, and others recede: but wherever the roof is visible over the battlements, it seems as if it rose to proclaim the triumph of art over science, or carpentry over architecture. The elevation D, (Fig. 1.) represents one of these spruce villas, surrounded by spruce firs, attended by Lombardy poplars, profusely scattered over the face of the country. That at F, may be supposed the fragment of some ancient castle, or *manor-house*, repaired and restored to make it habitable; and that at E is something betwixt the two.

The remaining part of this subject more peculiarly belongs to the landscape gardener, whose province it is to consider the effect of nature and art combined: let us examine the two different styles in the two landscapes in the next plate.

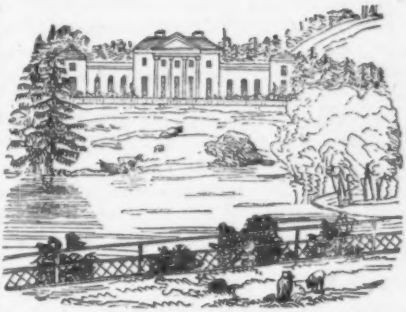


Fig. 2. A tame country, for which Grecian architecture is supposed to be most suitable.

In the quiet, calm, and beautiful scenery of a tame country, the elegant forms of Grecian art (Fig. 2) are, surely, more grateful and appropriate than a ruder and severer style; but, on the contrary, there are some wild and romantic situations, whose rocks, and dashing mountain-streams, or deep umbrageous dells, would seem to harmonize with the proud baronial tower, or mitred abbey, "embosomed high in tufted trees," as tending to associate the character of the building with that of its native accompaniment (see Fg. 3.)

Fig. 3. A bold rugged country, for which the castellated Gothic is considered best adapted.

The outline of a building is never so well seen as when in shadow, and opposed to a brilliant sky; or when it is reflected on the surface of a pool: then the great difference betwixt the Grecian and Gothic character is more peculiarly striking.

FOREIGN VARIETIES.

GRAPE MILDEW.—We cut the following from a French publication. With reference to the use of coal tar, we would enforce great care in its application; its baneful effects on foliage are well known. Skillfully applied to the stems while the vines are defoliated, taking care to omit the buds, the remedy is with time, and may be interesting to those who are troubled with this pest:

"M. RIVET states that in 1847 he was invited by Dr. LOZE to examine a sort of wine to which extraordidary properties were attributed. Another invitation to the same effect was received in 1849 from M. SOULEYET, who spoke highly of the efficacy of this wine in curing some diseases. M. RIVET found iodine in the wine; and he learned that the vines which produced it were not attacked by the Oidium, and that M. MOURIES had effected remarkable cures among vines by manure containing iodine. Having made some experiments, the following facts were elicited: 1st. Manure produced by the fermentation of marine plants has been employed in some parts of Spain since 1835. The soil which has received this manure contains, on the average, 1-600000 part of iodine. The vines which grow in it have never, up to the present time, been attacked by the Oidium. 2nd. The wine made from these vines has some peculiar qualities. In commerce, where it is rare, it bears the name of *Malaga Rives de Mer*. It is of all vegetable productions the richest in iodine, containing on the average 1-50000 part of that principle. 3rd. Iodine found naturally in plants or animals possesses an action which, by its nature and intensity, cannot be produced by its chemical preparations. M. DIDOT pointed out the absence of Oidium on vines, the wood of which had been smeared over with coal tar.

M. LAPIERRE-BEAUPRE stated that according to his observations the mildew does not attack the stem; the vines which were diseased in 1852 even appear to have for the most part escaped in 1853. It was stated by M. PASCAL that acetate of lead prevents the development of Oidium and other cryptogams. M. SOURDETTE proposes a simple and inexpensive preservative, which has proved successful in some experiments made during two years in the neighborhood of Bordeaux. In order to prevent and arrest the development of the Oidium, it is sufficient, three weeks after pruning the vine, to smear the stem and shoots with pure liquid tar, applied with a large brush. This operation costs very little, and has proved very successful on all the plants on which it has been performed, even although they were in the midst of infected vines. —*Comptes Rendus.*

AN officer of the Navy, lately at Valparaiso, writes us: "I thought of you the other day when looking at an Araucaria Imbricata, forty feet high, which stands in the midst of a public garden here—a sort of nursery garden, in which there are many things which would please you and those of your friends who delight in trees and flowers."

Indeed it would! Our own plants have stood the late trying winter better than some others of the new Evergreens, and we confess to having some hope of naturalising this Araucaria to our midland climate.

NOVEL EXPERIMENT.—Dr. DAUBENY has been trying to throw light on a question often raised by geologists: Whether organic life ever existed in the series of rocks below the Silurian—in

other words, whether the lowest rocks were deposited before the appearance of animal life. If not, the rock should exhibit traces of phosphoric acid under chemical analysis; but chemistry not having resolved the question, the doctor has made an indirect attempt to arrive at a conclusion by sowing barley in tubs filled with comminuted fragments of the various rocks, watching the growth, and testing the crop when ripe. The results hitherto are negative; and so far as they go, both series of experiments lead to the inference that animals did not exist at the time when the rocks in question were deposited.

New Silk Worm.—Mr. Westwood has reported to the Entomological Society, that he has received several pupæ of *Bombyx Cynthia* from Malta, and finds them to be very hardy. The silk from the carded cocoons is said to be of "incredible durability." It appears too, that in India there are not fewer than one hundred and fifty species of moths, the larvæ of which produce cocoons available for manufacturing purposes, and improvable by "education," to use the term of the French sericulturists.

Generous Plea for Old-Maidism.—Your Pink of Perfection is always considered by judges the best single.—*Punch.*

An Odd Coincidence.—The *Gardeners' Chronicle* tells us that the war with Russia has already increased the price of garden mats; adding "the great consumers of Russian mats must find a substitute, for BAST is necessary to the business." We now clearly see the importance of the war to the interests of gardening; for is not B A S T at least one-fourth of Se-bast-o-pol."—*Ibid.*

Succession of Flowers.—The Blue-bell opens its violet blue spikes of blossoms, and all the flowers that have preceded it recognise the signal and disappear; their part is played—they will come on again next year for a fresh representation. Look at them well, admire their various forms, their fresh or brilliant colors, inhale their various p rfumes, you will perhaps never see them again; if fortunate, you have at most twenty or thirty similar representations to behold.

But you see them depart without regret—they are replaced by so many others. In fact flowers will soon be so numerous it will be impossible to count them; every thing blossoms, or seems to blossom—trees, herbs, butterflies; but each has its day, each has its hour—*none come before, none exceed the prescribed moment.—From the French of Alphonse Kars.*

The Crystal Palace Plants.—The watering of the plants is a task of great nicety, ensconced as they are among miscellaneous articles, and articles ill fitted to bear wet or soil, while that of watering the 324 swinging flower baskets is a task of some peril. The upright fire-escape-like ladders, self sustained, are nervous tottering things for a man to find himself projected upon at fifty feet from the ground, with the additional weight of a heavy vessel of water. Strong heads, therefore, prefer climbing along the girders themselves. Indeed the ladder has more than once threatened to raise a rebellion, and ought not to be insisted on. In order to case-harden the statues liberal coatings of paint are bestowed on them, and any accidental share in the syringe-bath is immediately removed by a tender system of shampooning."—*Quarterly Review.*

EDITOR'S TABLE.

To Correspondents.—We particularly desire to retain as contributors the established as well as occasional correspondents of the *Horticulturist*, who have favored the late editor with their communications. The truth is elicited from the mouths of many witnesses, and every real experience is valuable. By general consent this periodical seems to have become the repository of the thoughts, and wishes, and doings of a very large circle of intelligent and active minds, whose writings we shall be happy to consider the work as the medium of communication to its readers. There is a practical communion in gardening pursuits, in which there are no concealments or patents; all should be willing to give their quota to the common stock, and where there is so much willingness to impart information as has heretofore been evinced, much knowledge will be disseminated. It has been a beautiful and valuable feature of Mr. Barry's management, that so much practical information has been elicited from all sections of the country, and we trust this feature will, in no degree, be impaired.

The ladies, too, should be encouraged to take up their pens; there are many who know much that is worthy of telling. We have many experienced readers among the fair portion of the lovers of a garden, and trust that they will not forget this invitation to our pages.

Intricacy in Gardening.—It would be difficult to select a more striking passage from any author on gardening than the following from Sir Uvedall Price's noble work on the picturesque:

"According to the idea I have formed of it, intricacy in landscape might be defined, that disposition of objects, which, by a partial and uncertain concealment, excites and nourishes curiosity. Many persons, who take little concern in the intricacy of oaks, beeches and thorns, may feel the effect of partial concealment in more interesting objects, and may have experienced how differently the passions are moved by an open licentious display of beauties, and by the unguarded disorder which sometimes escapes the care of modesty, and which coquetry so successfully imitates. Variety can hardly require a definition, though from the practice of many layers-out of ground, one might suppose it did. Upon the whole it appears to me, that as intricacy in the disposition, and variety in the forms, the tints and the lights and shadows of objects, are the great characteristics of picturesque scenery; so monotony and baldness are the great defects of improved places."

Hail Storm in May.—We witnessed next morning the deplorable effects of a hail storm which occurred at Plainfield, New Jersey, on the evening of the 24th of May last It would appear to have been extremely local, as no notice of it appeared at the time in the papers. Hail stones as large as Hickory nuts, of every shape, fell in great numbers, literally destroying the labors of the husbandman; and the rain, as if from a water-spout, inundated the whole neighborhood to the depth of two or three feet. An enthusiastic Pomologist, residing on the spot, suffered most seriously. Nearly all his young

Pears were indented bythe hail as if by shot from a gun fired within a very few feet; Cherries and other fruits were either knocked or blown off, and the whole nursery of young trees was imbedded in the young leaves and fruits; the young growth of the trees was incised by the hail stones as with a knife, and thousands of young grafts utterly destroyed. Sympathy with the gentlemanly sufferer was met, however, by the cheerful reply: "I am a man. It is not so bad as the shells at Sebastopol!"

Yellow Berrid Ivy.—A friend brought us from Rome last year two twigs of the Yellow Berrid Ivy, from which several specimens were propagated. One left out during the late trying winter has proved hardy. Loudon alluded to one specimen of this plant in England as very beautiful, the yellow color of the berries giving the appearance in winter of a wall of ripened fruit surrounded by green leaves. The several varieties of Ivy, including the tree, which grows without support, deserves more attention than they receive among us. The Irish or Giant Ivy grows so rapidly that in many exposed situations around Philadelphia it lost its leaves and topmost branches last winter; but we consider it the best variety for this climate notwithstanding, as the old wood is not killed, and it rapidly recovers.

Strawberries.—We have a note from Mr. William Stoms, of Cincinnati, on Strawberries, confirming what our friend Barry says respecting the success of *Hovey's Seedling* this season, which would have been inserted but for want of space. The next and best fruit was *McAvoy's Superior*. Mr. Stoms promises next month to give an account of the profits of Strawberry Culture, which we shall be glad to receive.

The Common Privet (*Ligustrum vulgare*) is one of the best Shrubs for dry gravelly situations, or arid hilly places. The writer frequently passes a noble specimen on a steep stony knoll, which is quite a model of beauty. It is very nearly evergreen, and its agreeably scented white flowers in July are quite attractive. It is so readily propagated by cuttings, that it is a matter of surprise that in situations so dry that few things will grow well, such a cheap and handsome plant should not be more generally employed than it is.

Self-Sealing Cans and Jars.—The preservation of Fruits, *without sugar or spirits*, is a matter of great importance, and we are happy to see it attracting attention. We expressed the belief a short time ago that the ingenuity of our people, proverbial as it is, would soon perfect some method, and this is now so. Every family in the land who grow fruits will soon be in the enjoyment of fresh Strawberries and Peaches in the depth of winter. New Self-sealing Cans are advertised in our pages this month; they strike us as possessing some important advantages, and we hope to test them satisfactorily this season. We recommend them to the attention of our readers.

July with its beauties from Nature is upon us! The harvest anticipated with so much deep interest by the farmer and consumer is all that could be hoped for, and gladness fills the land with but one note of thankfulness. Fruits promise well; Pears will be more abundant than for many years; Peaches in most of the Middle States more than an average crop, and Apples in most sections the same. Whether prices for the staples of life will materially recede is a question soon to be decided; our own opinion is

that they will, but disturbing causes abroad may disappoint the best founded expectations. We shall as a producing country have much to sell, and it would appear that the United States, as a whole, are just now in a most prosperous condition, however much individuals have been suffering:

"All nature is but art unknown to thee;
All chance, direction which thou canst not see;
All *discord, harmony* not understood;
All partial evil, universal good."

LIBERALITY.—At a meeting of the Executive Board of the Pennsylvania State Agricultural Society at Harrisburg, a communication was received from Gen. JAMES IRVIN, offering the Board from two hundred to two hundred and fifty acres of land in Centre county, near the geographical centre of Pennsylvania, for the purposes of a State Agricultural School, provided the same is located thereon. This species of liberality is but too rare; a gift of this kind in this neighborhood for a Horticultural Garden and School for young gardeners would be gladly chronicled.

"It is one of the features of our rapidly progressive sub-arctic climate, that the summer fruits are almost ripe, before one can report certainly upon the effects of the winter and spring freez ing—we have now advanced so far into the summer that things may be considered established, unless we get a very untimely frost which sometimes has happened even later than this.

The wheat in this region protected by the heavy snows has been but little winter killed and looks unusually fine and flourishing—there has been a great deal of it sown and the yield will in all probability much exceed the ordinary crop.

The Apple orchards blossomed in moderation, but the fruit has set remarkably well and there is a prospect of an abundant supply. Pears and Quinces also make a good show of fruit. The better kinds of Cherries did not bloom, though some of the hardier varieties seemed to have suffered but little. The poor Peach trees showed a sad amount of dead wood in April, and May has not much improved them—though the limbs are not killed outright; the buds, both wood and blossom were nearly all destroyed and the trees will look ragged until a new set are formed.

I think the trees will survive the freezing they have got, although they will be enfeebled and damaged by it. The lateness with which many of them came into leaf has saved them from the curl, and if they are subjected to no unfriendly weather hereafter, the damage may be less than we at first anticipated—a few stray blossoms here and there show themselves, but (except from some of the hardy country seedlings which are good for nothing) it is settled we shall have no Peaches. The Currant bushes are full of fruit, and the Strawberries full of blossoms, though the latter as well as our meadows would be the better for rain.

The winter has acted singularly on vegetation—thus, the Pawlonia and Osage Orange, which generally freeze in part, are putting out leaves to the very extremity of their branches.

We are having dry, musky, Indian summer weather at present, and though the subsoil is not very dry, we need rain to establish the grass which started well, but which now threatens to be light.

Knowing the interest you take in fruit culture generally, must be my apology for this infliction. Hoping you have as little to mourn over in your section, as we have in our orchards, I remain, very respectfully, A. HUIDEKOPER.—*Meadville May* 29, 1855.

P. S.—I have got my vines nicely in bloom and hope to make a good report of them in August."

A day or two after our friend's letter was written, his section of country and indeed a great part of New York, Pennsylvania and Ohio, enjoyed the benefit of an abundant rain.—B.

THE SHANK'S LAWN MOWER.—Mr. HENRY W. SARGENT, long a valued correspondent of the *Horticulturist*, writes us under date of June 20th, the following interesting information from Wodenethe on the North River:

"The most successful thing I have done this year has been importing Shank's Lawn Mowing Machine, (horse power) cutting thirty-two inches; this cuts, rolls and gathers the grass, and keeps your lawn in a condition no lawn scythe ever did, and will in clear lawns, cut, gather, and roll, a Scotch acre in *one hour!* My experience has been that between 8 A. M. and 4 P. M., it does what formerly occupied two men and a boy the better part of *nine days* to do, and infiniteiy better too.

A clever mechanic in my neighborhood is about making an improvement even on mine, and can afford to sell at the English prices, thus saving duty and freight. There are several sizes, running from £5 to £10, the first being for man power, the second for horse, cutting, I think, from twelve to thirty-two inches. There is also an intermediate size, called the poney size. If generally introduced among our country gentlemen, as they unquestionably will be when more known, they will produce the greatest improvement in our places."

Rochester, June 10.—The length of our Spring is exciting remark. Our Tulip beds are yet gay and Horse Chestnuts, Lilacs, Thorns, Laburnums, the early Spiræas, Azaleas, Rhododendrons, and such things as are usually passed and gone at this date, are now in all their freshness of full blooms. Fires and overcoats are yet indispensable. What with an intensity of cold last winter and our spring extending itself into the summer months we begin to feel as though we had slid off a few degrees north.

Strawberries from light sandy soil and sunny hill sides are just now beginning to appear in our markets but I have not yet seen a ripe berry in the ground here—Early Scarlet begins to color. The fruit crops look well though backward and the trees wear a healthy aspect. The peach trees that survived the wreck are looking finely contrary to all expectation. Indeed I think I never saw them look better; they are making strong shoots and the leaves are indicative of perfect health, whilst the wood under the bark is the color of Rosewood or Mahogany. In cutting through the bark I find the sap sticky and unnatural; what the final result will be I cannot determine.

Here and all over Ohio as far as I have observed the peach tree is unusually exempt from that disease known as the "Curl." This I believe is due to a steadiness of temperature at the time of opening of the buds and subsequently. We have had no sudden and violent alternations of heat and cold as we generally have in the month of May.

I think it fortunate that we have had such a long cool spring; it has enabled many trees and plants to recover from the injuries sustained last winter, that would otherwise have perished. We have all along had refreshing rains and these with a mild growing temperature have restored life and apparent health to many things that had been already numbered with the dead. Deodars and Cedars of Lebanon that looked as though they had passed through a fiery furnace are now covered with green leaves.

It is curious that Weeping Ash both the common and Gold Barked were severly injured and many of the latter killed outright, whilst Willows and Sophoras escaped unhurt. This reverses the ordinary result. Pawlonias and Catalpas that we expected to be cut down are pushing as strong as usual. Grapes both Isabella and Catawba on trellises are much injured. The Chinese Wistaria and even hardy Honeysuckles and many hardy Spireas are injured, but on the whole we have suffered much less than we anticipated. Our loss of the peach crop will be made up by an abundance of other fruits. B.

THE PEACH CROP.—The Peach crop in New Jersey and Delaware gives promise of being the largest ever known. Contracts have already been made for the delivery of large quantities of this fruit at very low prices.

Contrasts of Colors.—Allow me to suggest to those of your readers who contemplate laying out, planting, or altering, their ornamental or pleasure grounds, the importance of so arranging and classifying the Plants and Shrubs in clumps or beds as to have each to show a mass of bloom at the same season. For instance, a clump for early bloom might be composed of Dogwood, White and Rose colored Judus trees in the centre, White and Purple Magnolia, White and Red Pyrus Japonica, Ribes Sanginneum, Double Flowering Almond, Forsythia Viridissima Spirea Prunifolia, Calycanthus, &c. For later bloom, say White Fringe tree and Snowball in the centre, Common, White and Persian Lilac, Syringa, Spirea Reevesii, Wiegela Rosea, different varieties of Cractegus or Hawthorn, Brown, Mahonia Aguifolium, Azalias, Roses, &c. and so on throughout the season. The effect of such a variety and mass of bloom has a most charming effect, far exceeding that of the same number of plants in isolated positions.

I have heard such frequent complaints of the want of hardy evergreen Shrubs for planting in shrubberies and clumps, as to induce me to call the attention of your readers to that much neglected, but very beautiful and hardy plant, the *tree* variety of the box. Many persons are prejudiced against this plant in consequence of the formal appearance of most of the specimens in this neighborhood. But if it is allowed to grow unmolested by the shears or knife, its shape is as graceful as any other evergreen. It is easily propagated and at the same time so perfectly hardy that I am surprised to find that it is not more popular. Put in cuttings very early in the spring in rather a shady situation and by fall they will be well rooted, Yours, D. R. K.

The effects alluded to are worthy of study; the Forsythia viridissima (yellow) contrasted with the Pyrus Japonica (two varieties), and the Spirea *prunifl. pl.* (white), which flower at the same time in early May, form a group which the smallest garden might easily possess. The White Wistaria, if it blooms at the same time with the Blue, should be planted with it. We have not yet been so fortunate as to see the former, which appears to be still very scarce.—Ed.

Budding.—The period of innoculating having arrived, a hint to ameteurs and others on the *selection and preparation* of buds for the operation will be seasonable. Rules for securing a successful union with the stock are abundant; but how to prepare a bud so as to make it shoot strongly the next season, is not so often noticed, and the consequence is that of many buds which the operator succeeds in getting to "take," many of them either remain entirely dormant, or shoot very weakly the next season. Whenever practicable the shoot selected to supply the buds, should have its point taken out by the finger and thumb, a week or so before required for use; this gives the buds a plumpness and imbibes them with a latent principle of activity which aids them in starting into growth. To stop them too long a time—several weeks before use—would induce them to break soon after budding, which is frequently an injury, as the shoots so made are apt to get winter killed; besides, in the case of fruit trees where a clear straight stem is desirable, the shoot is apt to grow crooked. In budding, the branch or stock should be headed back immediately after the operation, in proportion to the fulness of the bud inserted. A full or plump bud requiring scarcely any; one scarcely visible, on the contrary, may be cut well back.

A New Oil Plant.—The small plant (*Castiglionia lobata,*) known in Peru under the name of "Pionncello," and cultivated about Surco, Huacho, and Sambageque, also growing wild in considerable abundance in those regions, it has been ascertained, yields a valuable oil, well adapted to the purposes of illumination. Its bean like fruit, or seeds, when roasted, have an agreeable flavor, preferable to that of the olive. When eaten raw, the etherial oil generated between the kernel and the outer skin is a strong cathartic, the effects of which can only be counteracted by drinking cold water. It has been ascertained that the seeds will grow in Baltimore; and,

doubtless, plantations of this tree might be formed in many parts of the South, from which vast quantities of oil might be produced, and thus add another link to the great chain of our national wealth. The Patent Office has taken measures to procure some of the seeds of this tree for trial in the South and South-west.—*Bath Sun.*

The newspaper press generally pays so little attention to scientific affairs, that it is quite refreshing to meet with a paragraph like the above, which can be understood. The plant alluded to, is better known to gardeners under the name of *Jatropha*, or *Curcas*, its original name. It is very closely allied to the *Ricinus*, or Castor oil plant so common in gardens, and like that plant, the oil produced by it is of the most violently purging character. The whole family of plants, to which the present subject belongs, *Euphorbiaclee*, is celebrated for their oily and gummy properties, and many of them might be made of more service in the economic arts, than they even are at present. Plants of it might be obtained from some of the English old Botanic gardens.

Academy of Natural Sciences.—The great additions and improvements to the Academy of Natural Sciences in Broad street, Philadelphia, are now completed and visitors are admitted as heretofore on Tuesdays and Fridays, from one o'clock until sunset, with tickets obtainable gratuitously from members of the society. There is not in the United States a museum of Natural history better worthy a visit than this; its collection of birds alone, entirely unique and very extensive and superb would well repay a lover of nature for the longest journey. Modestly and scientifically conducted by a few well instructed naturalists it forms a curious contrast to the *be-musicked* and *be-puffed* so called museums in some places that we could name. This Academy is a *real thing*, and no sham, and therefore it is not much visited by the many! We are a great people.

Catalogue of Seeds.—The Catalogue of seeds for sale by Mr. Thomas Meehan of Germantown, Philadelphia, embraces nearly everything that can be collected, and will prove of great value to nurserymen as well as amateurs. The prices appear to be very reasonable.

The Pennsylvania State Agricultural Society have published their regulations for the next exhibition at Harisburg. The days selected for the Fair are Tuesday, Wednesday, Thursday and Friday, the 25th, 26th, 27th and 28th days of September. The Ploughing Match will take place on Friday, the 28th, in the field adjacent to the place of exhibition. Competition is invited from all parts of United States.

Corn in Tassel.—The Savannah Georgian of June 8th says: Corn is backward—it has only just begun to tassal. Wheat harvest is over, and the crop is a good one.

Progress of Reaping Machines.—We have been informed by a manufacturer of agricultural implements—on who is excellent authority—that between fifteen and sixteen thousand reaping machines will be manufactured and sold this year in our country. The demand is so great that manufactures cannot make them fast enough for their orders. This affords evidence of agricultural prosperity, as the cost of these machines will amount to nearly two millions of dollars. Our farmers exhibit wisdom in using and patronizing machinery. A reaping machine will save the price of itself in one season.—*Scientific American.*

Answers to Correspondents.

QUINCE TREES.—If you want good Quinces manure the roots of the trees in November by forking in five or six shovel fulls of fresh stable manure. In spring dig round the trees, and give a broadcast spread of salt making a light coat sufficient to half conceal the ground under each tree. Prune in the autumn, after the fall of the leaf by cutting out mainly old or decayed wood, or branches which make the head too thick or unsightly. The finest Quinces we get are from Newport, R. I., where either the climate, the salt sea air or some quality of the soil produce both a tree and fruit eminently superior to any known about Philadelphia; where the fruit is almost universally unsightly and knotty. A Quince tree in full bearing at Newport is almost if not quite as handsome an object as an orange tree at St. Augustine, Florida.

MAGNOLIA CONSPICUA.—The finest blooming specimens of this glorious tree are grafted on the acuminate; this gives them a compact habit, and with abundance of flowers. The last spring was particularly favorable to the blooming of the Conspicua; the cold retarded it, and a profusion of flowers were entirely uninjured. St. Patricks day in this neighborhood usually produces flowers, and between the Saint and his wife and the snow and blow that are all but universal, we have this favorite often terribly knocked about, but if it bloomed but once in five years, we should consider it indespensable.

A correspondent who has a deep glen near his mansion inquiries how he shall best fill the deepest parts so as to present to the eye an evergreen appearance in looking down upon it. Inequality of ground is often one of its greatest beauties, and care must be used not to obliterate it entirely. Trees grow taller in the valleys than on the hills and will therefore not answer. A green, grassy appearance may be effectually produced in a deep ravine by planting it with American Arbor vitae, placing larger plants in the deepest parts, and the smaller on the sides; occasional shearing off the tops to keep them nearly on a level, will produce the desired effect; the plants brought from Maine may with care, and a year or two preparation in nursery rows, be procured at very moderate cost, and they will prove not only cheap but better than any other description. Planted young with nothing to interfere with its side shoots, the American Arbor vitae forms a charming screen or hedge in a few years, of eighteen feet in height. A slight objection to this plant is that it becomes brown in winter, but its spring and summer aspect is highly gratifying. It will be well not to neglect our native productions for semi-hardy evergreens which have given little satisfaction during the late hard winter. Where the valley is large and deep, the Norway Spruce may be substituted; this tree, the gardeners say is on the whole the most generally satisfactory evergreen to the purchaser that they sell. The next that comes into full fashion we hope may be the Hemlock, respecting, the treatment of which we shall hereafter allude.

Will you please to inform me if Pæonies will come up the first season planted in May, or when is the right time to plant, or if they require to be frozen before they will germinate, and give me a few items about cultivating them. Please to give me imformation through the Journal, RICHARD SPEED.—*Centreville Iowa, May 20th* 1855.

The seeds should be sowed as soon as ripe, and after one season's growth in the seed bed may be transplanted into place for flowering. They are easily managed.

(A. G. H.) INSECTS.—The Plum twigs sent are covered with the *scaly aphis*. Wash the parts affected with the following mixture: Soft soap and water in proportion of one quart of former to four of latter, with lime or ashes enough to make it of the consistency of whitewash. Put on with a brush.

Horticultural Societies.

SPRINGFIELD HORTICULTURAL SOCIETY.—Pursuant to a notice for a meeting of the Horticultural Society, for the purpose of making arrangements for the annual exhibition, quite a large body of young men met at the court house, on the evening of the 26th ult., to make such arrangements as were necessary for the coming exhibition. Upon nominations for officers for the ensuing year the following persons were chosen:—

For *President*—NOAH DIVELBISS; *Treasurer*—R. M. RIDGELY; *Secretary*—H. POST.

Resolved, That our annual exhibition be held in METROPOLITAN HALL, and the secretary to report at the next meeting, upon what terms the hall could be obtained.

Resolved, That a committee of three be appointed to confer with the officers of the different railroads, to make arrangements for carrying to and from the exhibition, as is usual at such times. Said committee to be Messrs. Mather, Christian and Dean.

Resolved, That a committee of twelve be appointed as a committee of arrangements, to meet on Monday evening (28th inst.,) at this place, to make the necssary preparations for the exhibition, appointing committees, &c., &c.

The following persons were chosen:—

Messrs. Conkling, M. Doyle, Primm, Mayo, R. Ridgely, Rayburn, Lloyd, Christian Kimber, Dean, Conant and Butler.

Resolved, That the proceedings of the meeting be published in the city papers.

Meeting adjourned to Tuesday evening, 29th, to meet at same place.—NOAH DIVELBISS, President.—H. POST, Secretary.

KENTUCKY HORTICULTURAL SOCIETY.—A flourishing account of the Exhibition of this Society, held on the second of June, has been received. It is quite cheering to hear of such doings in Kentucky, where fruits and flowers appear to be as much appreciated as in our older cities. The account reached our table just as the printer was going to press, and we are consequently deprived of the pleasure of giving publicity to this graphic account. Communications should be sent as early in the month as convenience will allow.

PENNSYLVANIA HORTICULTURAL SOCIETY.—*May Monthly Meeting.—Reported expressly for the Horticulturist.*—It is gratifying to notice the continued interest taken in these exhibitions by the crowded concourse of visitors, and the increased value set on the efforts of the Society, as shown by the enlarged list of competitors, and the value and beauty of the objects exhibited.

At this early season of the year, much could not be expected from the fruit department; but several very handsome bunches of Grapes from vines grown and forced in pots, were very remarkable for the fine size of their berries.

Of flowers there were many rare and beautiful specimens. Perhaps the greatest amount of interest was collected around the new Roses, which were for once not only tolerably new, but superior to others already well known. They were chiefly hybrid perpetual or Bourbon varieties. *Mrs. Rivers* was especially very fine. The others most worthy of note were *Crystal Palace*, large vermillion, but rather loose, not so deep in color, but in other respects superior to

the now well known *Geant des Batailles*; *Triomphe de Paris*, also resembling the two last named *Souvenir des Caves*, crimson scarlet, with a very large round petal; *Lion des Combats*, now getting as deservedly well known here as the "Geant;" *Jules Marjottin*, a fine rose, and *Col. Toissey*.

Amongst the new plants which we have not before seen in flower here, *Escallonia Macrantha* may be noticed. It was a very large plant, five or six feet high, with a single spike of pink flowers at the top, each single flower resembling one of *Habrothamnus* in shape. Unless it prove hardy, which we think doubtful, it will not be a great addition to our collections, requiring too much space to bloom freely. *Jovellana punctata* seemed like a pretty addition; it had purplish flowers, each nearly cloven in two parts, and something resembling an *Angelonia*, with verbena-like leaves. It is considered closely allied botanically to the *Calceolaria*. A plant allied to the *Melastonias*, *Erioœnema amena*, was also exhibited. A small plant of the new Chinese Potatoe, *Diascorea Japonica*, of which those who are acquainted with the leaves of our common "Green Briar" (*Smilax rotundifolia*) will be able to form some idea of the appearance. *Gloxineas* are so numerous that it is difficult to find distinct ones; some very fine kinds were present. P. WILSON'S white, with carmine throat, struck us as being very large, and of free blooming qualities.

Of plants, not for the first time seen on the tables, but still somewhat rare in collections; some specimens of *Mussœnda frondosa* were very fine. One, which had never been topped or cut back to form a "specimen," but which had its trailing shoots trained over a cylindrical trellis about three feet high, was clothed entirely with flowers, and formed a most beautiful object; it will doubtless soon be very common in hot-houses, where only it will thrive well. *Puya Alstentienii* was in flower in two collections; its Indian Corn-like leaves well set off by a column of purple bracts gives it a peculiar appearance. *Begona adorata*, with white and sweet scented flowers, was present in two collections.

An unusual feature in our exhibitions,—a large number of *Orchideous* plants offered a wide field of interest to the lovers of the curious and beautiful. As showing what kinds bloom at this season of the year, we append the names of the following as amongst the most beautiful of those exhibited: *Cypripedium barbatum*, grown in a pot of charcoal and moss; *Dendrobium nobile*, grown on a block; *Cattleya mosseœ*, pot of charcoal and moss; *Bletia hyacinthina*, pot of peaty soil; *Camarotis purpurea*, on a block.

There was a very fair specimen of a pretty white flowering plant, allied to the Myrtle, which we do not remember to have met with before in such condition, called *Leptospermum bullatum*, a green-house plant, and one deserving extensive culture. An *Ixora cracata*, with brick-red flowers in large heads, (a stove plant) was very attractive.

The *Pelargoniums* were grown in a very superior manner. Two specimens of the fancy varieties, *Ytolmski*, and *Jenny Lind*, could perhaps scarcely be excelled; the latter we consider one of the most free blooming varieties. In spite of the fact that some of our best gardeners believe they can grow heaths very well here, we seldom see them on our tables. On this occasion we saw a small and healthy plant of *E. perspicua erecta* exhibited, covered with white tubular flowers nearly one inch long.

There was a fine collection of *Azaleas*; the plants not large, but the flowers were of a size seldom seen. A very poor criterion of excellent growth. Amongst them one, *A. variegata*, was conspicuous for its beauty, in spite of the newer varieties by which it was surronnded.

A new *Heliotrope*, *Beauty of the Boudoir*, was exhibited; its chief distinction seemed to be in a larger and more compact truss of flowers. Gas-light, however, is a bad opportunity of judging the merits of the colors of a Heliotrope. The same may be said of some cut blooms of a new rose exhibited, labeled "Isabella Gray;" the flower very double and of a much deeper color than any of the yellow roses we are acquainted with, but which by daylight we were informed was of as deep a yellow as the Persian Briar. It had a delicious fragrance.

It would be an endless task to enumerate all the worthy things exhibited. A *Deutzia graci-*

lis, particularly, strikes us as one of the handsomest of recent hardy introductions; and the very handsome baskets of flowers, both native and exotics of the most costly description.

PENNSYLVANIA HORTICULTURAL SOCIETY.—*May 15th*, 1855.—The stated meeting of the Society was held this evening.

The President in the chair.

The following premiums were awarded by the committee of plants and flowers. Pelargoniums—six varieties for the best; to Robert Buist, specimen Pelargonium, the best to the same. Cinerarias, six varieties, for the best and second best to J. J. Habermehl, gardener to JOHN LAMBERT. Roses, hybrid perpetual, twelve plants of six varieties, for the best to J. ALLGEIER. Tulips, cut flowers single, for the best, to GEO. W. EARL. Collection of twelve plants, for the best, to ROBERT BUIST; for the second best to JOHN POLLOCK, gardener to JAMES DUNDAS. Collection of six plants, for the best, to WM. THOMPSON, gardener to John Tucker; specimen plant, for the best to WM. SINTON, gardener to Dr. J. RUSH; for the second best to JOHN POLLOCK, gardener to JAMES DUNDAS. Basket, for the best to J. J. HABERMEHL, gardener to JOHN LAMBERT; for the second best to MARK HILL, gardener to M. W. BALDWIN. Of indiginous flowers, for the best to MEEHAN and SAUNDERS. Bouquets, one pair, for the best to J. J. HABERMEHL, gardener to J. LAMBERT; for the second best to JEROME GRAFF, gardener to C. COPE. Special premiums—of three dollars to WM. THOMPSON, gardener to JOHN TUCKER, for a beautiful collection of Azaleas; of two dollars to MARK HILL for Fuschias and Pelargoniums; of one dollar each to JOHN POLLOCK, gardener to JAMES DUNDAS, for a collection of Gloxinias and for two seedling Gloxinias and Orchids. The committee called attention to a new Heliotrope variety, *Beauty of the Boudoir*, as worthy of notice, shown by PETER MACKENZIE.

On motion ordered that a special premium of three dollars be awarded to JAMES KENT, gardener to J. F. KNORR, for a fine collection of plants.

By the Florist committee—Grapes, for the best three bunches, white Frontginac, to WM. THOMPSON, gardener to JOHN TUCKER.

By the committee on vegetables—Cucumbers, for the best six specimens to WM. THOMPSON, gardener to JOHN TUCKER. Rhubarb, for the best to SAMUEL COOPER; for the second best to HENRY COOPER. Asparagus, for the best to JAMES M. TAGE; display by a private gardener, to MARK HILL, gardener to M. W. BALDWIN; for the second best to WM. THOMPSON, gardener to JOHN TUCKER. Special premiums, one dollar to JEROME GRAFF, gardener to C. COPE for a display of Beans, Tomatoes, Cucumbers and Asparagus; one dollar to CORNELIUS O'BRIEN gardener to D. R. KING for a dish of Mushroons.

On motion ordered, that the thanks of the society be tendered to A. H. ERNST, of Cincinnati, Ohio, for the gift of a copy of Practical Landscape Gardening, by G. M. Kern.

On motion, Resolved,—that this society has heard with pleasure of the purchase of the periodical called the "Horticulturist" by a gentleman of this city, and its future location and publication here, and cordially recommend it to the patronage of its members and that of the community generally.

Members elected—THOMAS C. TRIPLER.

Objects Shown—*Plants* by R. BUIST,—specimen *Nurembergia grandiflora;* collection of twelve, *Cuttleia Mossiae var Camarotis purpurea, Cuphea platycentra, Mussaenda frondosa, Vinea occulata, V. rosea, Polygala dalmasiana, Pelargonium var orion.* Specimen Pelargonium, *Ytolmskii*, six varieties Pelargonia—*Jenny Lind, Parodi, Lucille de Belmont, Mary, Ondine*, and *Sir Harry Smith.*

By J. POLLOCK, gardener to JAMES DUNDAS, specimen *Cuphea platycentra, two seedling Gloxinias, Dendrobium nobilis, D. chrysanthemum, Cypripeduim barbatum*; collection of Gloxinias, of twelve—*Pelargonium var, Cerise unique, P. ivy-leaved, Allamanda neriefolia, Tropæolum tricolorum, Begonia insignis, B. nitida, Tetratheca virticillata, Agapanthus umbellatus, Rhododendron hybrida*, four varieties; also a collection of six.

By Wm. Thompson, gardener to John Tucker, six Azaleas—*Variegata lateritia, Corronata, Iridica var, Symetry, Lateritia carnca* and *Glory of Sunninghill.* Collection of six—*Izora crocata, Lophospermum bullatum, Pitcairnia undulata, Erica perspicua nana, Pelargonium var* and *Azalea lateritia.*

By J. J. Habermehl, gardener to J. Lambert, twelve seedling Cinerarias. By James Kent, gardener to J. F. Knorr, a large collection of fine Plums. By P. Allgier, Roses—a dozen hybrid perpetual. By Mark Hill, gardener to M. W. Baldwin, five Pelargoniums and three Fuchsias. By Jerome Graff, gardener to C. Cope—new plants, *Erionema amœna* and *Escallonia macrantha.* By W. Linton, gardener to Dr. J. Rush—*Specimen mussaenda frondosa.* By Peter Mackenzie, a *new* Heliotrope, *Beauti du Boudoir.* By Alex. Parker, a small collection of Violets, cut Hyacinths and Tulips. By G. W. Earl, fine cut Tulips. By James Ritchie, cut flowers of the new yellow Rose "*Isabella Gray.*" By H. L. Tripler, *Discorea japonica,* the new Japanese Yam.

Baskets and *Bouquets,* by J. J. Habermehl gardener to J. Lambert, a basket and pair of Bouquets. By Mark Hill, gardener M. W. Baldwin, a basket. By Jerome Graff, gardener to C. Cope, a pair of Bouquets. By Meehan and Saunders, a basket of indigenous flowers. By Cornelius O'Brien, a basket of indigenous flowers.

Fruit—By Wm. Thompson, gardener to John Tucker, Grapes, three bunches White Frontignac, and three Black Hamburg.

Vegetables—By Mark Hill, gardener to M. W. Baldwin, Potatoes, Lettuce, Cauliflower and Radishes. By W. Thompson, gardener to John Tucker, Cucumbers, &c. By J. Graff, gardener to C. Cope, Asparagus, Cucumbers, Tomatoes, Beans and Rhubarb. By Samuel Cooper, very fine Rhubarb. By Henry Cooper, fine Rhubarb. By John M. Laughlin, gardener to I. B. Baxter, Rhubarb. By James M. Tage, Burlington N. J., two varieties of very fine Asparagus. By J. J. Habermehl, gardener to J. Lambert, Rhubarb. By C. O'Brien, gardener to D. R. King, Mushrooms.

Pennsylvania Horticultural Society.—The notice of two monthly meetings in one number, leaves little room to say much of the last one,—pronounced to be the best July exhibition ever held here. The Fuchsias especially were "*extra*" *fine,* showing a vast improvement in their culture over former years. Some of them were ten feet high, clothed with flowers and foliage to the base,—perfect pyramids. They mostly averaged six feet, and one and a half to two feet diameter at the base. There seemed to be little improvement in the quality of the varieties. Prince Arthur still leads the light colored class, and Alpha stands "first" amongst the reds. A new light one exhibited separately, however, in the way of Prince Arthur, called Duchesse of Lancaster, is a decided improvement. The old Fuchsia arborea made its appearance in very good condition. It will be long before it is entirely discarded. Amongst the numberless varieties of Gloxinias exhibited, there were few remarkable for distinctive characters. "*Mrs. Griffith,*" a purple variety with the lobes of the corolla, having a white blotch; and *Godfrey of Bouillon,* another purple, were well marked and distinct. Our old friend, *G. Fyfiana,* was still conspicuous amongst all others.

Of the new plants for the first time seen on our tables, a *Chirita,* named "Achimènes Chirita," was very ornamental; *Whitlavia grandiflora,* with its beautiful blue flowers, and conspicuous white anthers, showed to poor advantage by gas light; three varieties of Lilies had *upright* flowers, striped in various ways like Tulips, and with the foliage of the Tiger Lily, which also they resembled in the color of the flowers; three Gladiclus, very good, one of them "Queen Victoria," largest, of a cherry color; another, "General Cavaignac," crimson, "very good;" a green edged Petunia, raised by A. C. Prachts, Baltimore, best of its class.

Of rare plants, *Medinilla magnicfica*, a stove plant, was highly attractive; *Cryptolepis longiflora*, a stove shrub, with white jessamine-like flowers, a first rate "thing;" *Kalosanthes*, (crassula) var "Phœnix," about two feet high, and fifty heads of flowers, beautiful; *Tropœolum*, "Lillie Schmidt," appears to be a variety between Lobbianum and the common kind; *Cattleya massiæ*, an orchid, with fourteen flowers or unexpanded buds thereon; and several other orchids of less note.

A collection of seven kinds of striped Roses, and twenty, very distinct, of Moss Roses attracted much attention. A stray Dahlia, having mistaken our recent rains for autumnal showers, was beautiful even in its loneliness.

The Strawberries were in much greater profusion than usual at this season. *Hovey's Seedling*, very fine berries, were the largest in size exhibited. *Black Prince* next, and with its rich color seemed hardly to deserve its black reputation. *Pennsylvania*, amongst the newer ones, had a showy appearance, though said to be deficient in flavor this season, as indeed are most others.

Bunches of Grapes from pot-culture were finer even than usual, and Peaches, Nectarines, &c., ripe from the forcing-houses, gave us a foretaste of the "good time coming." Eliza and David Hill, two of the kinds exhibited, are very good Peaches for forcing. In the classes of Cherries, Gooseberries, Currants, &c., though the exhibition was very fine, we saw nothing new to note.

Amongst the Vegetables, the Pea called "Tom Thumb" was exhibited—Peas, plant and all. It is of the same class as Bishop's Dwarf, but said to be very early, and well adapted for forcing, or where early crops are desired in small spaces. Some Cauliflowers over eighteen inches in diameter, and very hard and solid, were on the tables, and many other fine and well cultivated vegetables.

Pennsylvania Horticurtural Society.—*June* 19. 1855.—The stated meeting of this Society was held this evening. The President in the chair. The display was rich in fine Plants and fruits. The following premiums were awarded,—by the Committee on plants and flowers *Gloxinias* eight plants eight varieties—for the best to Thomas Robertson gardener to B. A. Fahnestock; for the second best, to Alex. Burnet, gardener to H. Pratt McKean. *Fuchsias* eight plants and varieties—for the best to Thomas Robertson gardener to B. A. Fahnestock; for the second best to Mark Hill; for the third best to John Pollock gardener to James Dundas. *Lilies* three plants for the best to Robert Buist. *Carnation* American Seedling for the best to H. A. Dreer. *Herbaceous cut flowers* for the best to Thomas Meehan. *Collection of twelve plants*—for the best to Robt. Buist, for the second best to Thomas Robertson gardener to B. A. Fahnestock. *Collection* of six *plants*, for the best, to J. J. Habermehl gardener to John Lambert. *Specimen plants*—for the best—*Medinella magnifica*, to Thomas Robertson gardener to B. A. Fahnestock; for the second best, the *Rynchospermum jasminoides*, to Robert Buist. *New plants*—For Fuchsia Duchess of Lancaster $2,00, to Thomas Robertson gardener to B. A. Fahnestock. *Table design* for the second best to A. L. Felton. *Basket* of *cut flowers* for the best, to Jerome Graff gardener to C. Cope; for the second best to J. J. Habermehl, gardener to J. Lambert; of indigenous flowers—for the best to Thomas Meehan. *Bouquets*—for the, best, to H. A. Dreer; for the second, best to Jerome Graff, gardener to C. Cope. Special premiums, three dollars to John Pollock gardener to James Dundas for seedling Gloxinias: Three dollars for Orchids &c. to the same; one dollar for a collection of stocks; H. A. Dreer, one dollar, for seedling Verbenas to the same; two dollars for fine Roses &c. to Robert Buist.

The Committee noticed a very fine seedling Petunia, green edged, grown by Augt. C. Pracht of Baltimore.

By the Committee on fruits, *Strawberries* two quarts, for the best to A. L. Felton; for the second best to Robert Buist. *Cherries*, three pounds—for the best, to Samuel Cooper; for

the second best to Geo. W. Earl. *Currants*, two quarts for the best red to Isaac B. Baxter, and for the best white, to the same. Special premiums. *Grapes*, pot-culture for three very fine bunches of Black Hamburg and Frankenthal, two dollars, to Wm. Thompson gardener to John Tucker; for three bunches Black Hamburg &c. two dollars to Mark Hill gardener to M. W. Baldwin; for three bunches of white varieties two dollars to the same. For a collection of *Nectarines* and *Peaches* two dollars, to Jerome Graff gardener to C. Cope. For very fine Moyamensing Strawberries, one dollar to A. L. Felton; and for superior Pennsylvania Strawberries, one dollar to Gerhard Schmitz.

By the Committee on Vegetables—*display* by a market gardener for the best to A. L. Felton, Special premiums of two dollars, for a very fine collection of Cauliflowers to John Riley gardener at the Insane Asylum one dollar; for two dishes of Mushrooms to Alex. Burnett gardener to H. Pratt McKean. Six gentlemen were proposed for membership.

OBJECTS SHOWN.—*Plants*—by Thomas Robertson gardener to B. A. Fahnestock; *Gloxinias*; *Fuchsias*; *Specimen* plant Medinilla magnifica; Collection of twelve plants; Display of *Gloxinias*; and a Fuchsia shown for the first time—the Duchess of Lancaster.

By John Pollock gardener to James Dundas—Collection of twelve plants; eight *Fuchsias*; *Orchids*; eight Gloxinias—twelve Seedling Gloxinias; a collection of Fuchsias; *Specimen* plant—Cuphea platycentra, and Achimenes chireita shown for the first time.

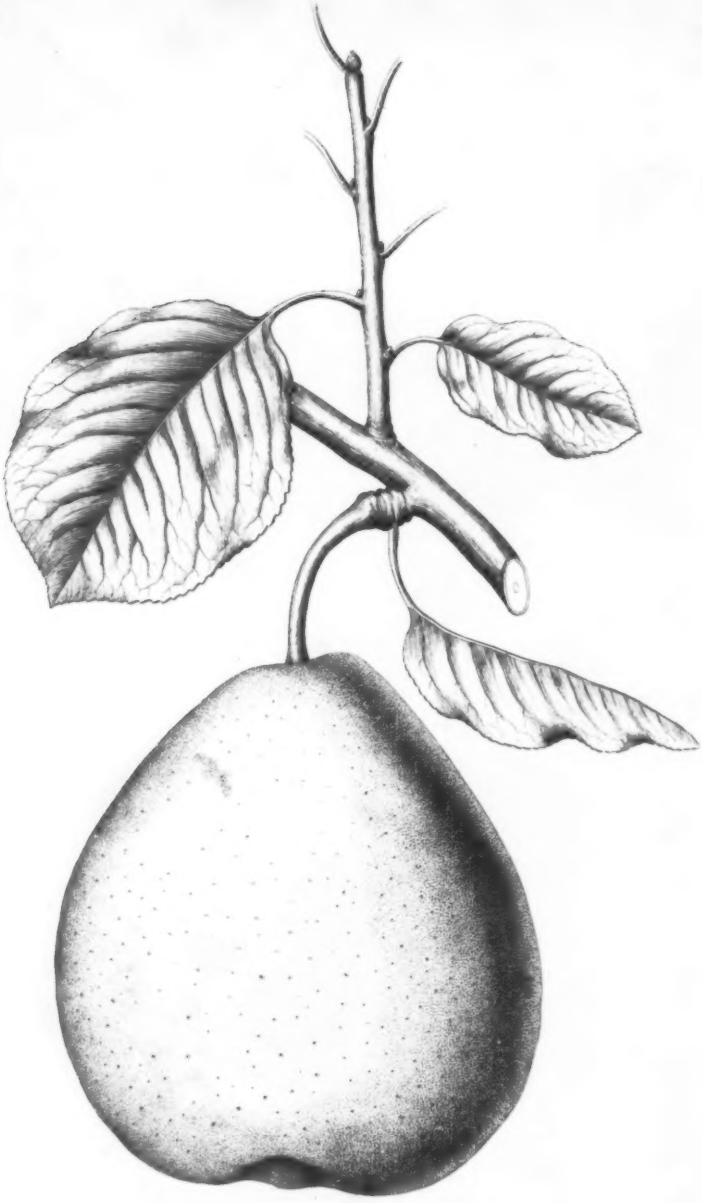
By Robert Buist—twelve plants—*New*—Gloxinias—Franklin; large rose and Duke of Wellington Lilies—Duke of Sutherland, Nabob and Titian and cut-flowers—fifty-six sorts of hybrid perpetual and hybrid China Roses including new and rare kinds—twenty Moss Roses, and seven Variegated and striped Roses: Gladiolus—Queen Victoria, Prince Albert and Gen. Cavaignac; also a new Japan hardy evergreen Honeysuckle, very fragant; some branches producing all white, others Yellow flowers.

By J. J. Habermehl gardener to John Lambert—six plants. By Mark Hill gardener to M. W. Baldwin—eight Fuchsias. By Henry A. Dreer—three Seedling Carnations, six large flowered German Stocks, cut flowers of Salpiglossis Variabilis, new colors and a collection of Seedling Verbenas. By Alex. Burnett gardener to H. P. McKean—Gloxinias. By Thomas Meehan—A new green edged Petunia, Pracht's, "Domocilia" new Whitlavia Grandiflora, collection of Belgian Sasies and cut herbaceous plants.

Designs, *Bouquets*, &c.—By Jerome Graff gardener to C. Cope—A fine Basket and two hand Bouquets. By J. J. Habermehl, gardener to J. Lambert—A Basket and Pair Bouquets. By Thomas Meehan—A Basket of indigenous flowers. By A. L. Felton—Cone Bouquets. By H. A. Dreer—A Pair Hand Bouquets. By James Kent gardener to J. F. Knorr.

Fruit—By A. L. Felton, *Strawberries*, eleven varieties, and some of them of great size—Currants—Gooseberries, and Mulberries. By Isaac B. Baxter—White and Red Currants, and two varieties of Cherries. By Jerome Graff gardener to C. Cope—*Peaches*—Shanghai, Eliza and David Hill—*Nectarines*—Elruge, Downton, Pitmaston Orange, and Early Newington. By Mark Hill—*Grapes*, Pot-culture—six Bunches of Black and White varieties. By William Thompson gardener to John Tucker, three Bunches of Black varieties. By Gerhard Schmitz—*Strawberries*—Pennsylvania very fine. By Robert Buist—*Strawberries*—Seedling resembling Black Prince. By Samuel Cooper—*Cherries* Bleeding hearts. By Geo. W. Earl—*Cherries* Amber.

Vegetables—By A. L. Felton—A fine display. By John Riley, gardener at Insane Asylum—seventeen very large Cauliflowers. By A. Burnett gardener to H. P. McKean, fine Mushrooms. By Samuel Cooper—Peas Pennsylvania growth. By H. A. Dreer.—Tom Thumb Peas.



HOWELL PEAR.

UNIV. OF MICH.

Hedges.---A Premium Offered.

THE importance of suitable enclosures for farms and gardens, as well as for ornament and screens, has long exercised the thoughts of cultivators, and the best has not yet ceased to be a problem that many are seeking to solve. In some sections of this immense country, it is a topic of the first consideration, and well deserving attention. The thorn in most portions of America has been abandoned on account of its diseases and the attacks of insects, and various efforts have been made to find a substitute. Good authorities have recommended from time to time the Osage Orange; this comes tolerably *near* to possessing all the requisites, but we regret to say it, not all. Efforts are still making by various patriotic individuals, and at length our different sections and climates may find the desideratum. We shall endeavor to impart such information as is now possessed, and in doing this must acknowledge our indebtedness for examples of fine hedges to Mr. WILLIAM REID, of Elizabethtown, New Jersey, who possesses within his remarkably well kept nurseries specimens of various descriptions, in the highest keeping and beauty.

An English writer says justly, "As to the beauty of a fine hedge, it is impossible for any one who has not seen it to form an idea; contrasted with a wooden, or even a brick fence, it is like the land of Canaan compared with the deserts of Arabia." The delay in bringing a hedge to perfection should not discourage the provident improver, for it is an everlasting fence, "at least," says DOWNING, "in any acceptation of the words known to our restless and changing countrymen. When once grown, the small trouble of annual trimming costs not a whit more than the average expense of repairs on a wooden fence, while its freshness and verdure are renewed with every vernal return of the flower and the leaf."

As the hedge grows up, repeated cuttings are necessary, so that a wide bottom may be gained, without which none can be considered either useful or ornamental; for if broad at the top it retains water and snow to the great injury of the plants. Proper management will remedy most of the evils attendant upon the operation, but in America, with its costly labor and the *rush* of work at trimming time, farmers are still to be found who will twice or thrice a year go over long hedges with proper care and precaution, to procure a permanent and elegant enclosure. Wood for fences is becoming very scarce, and there are prairie lands where no timber can be had for the post and rail or the worm fence, and sections where the land yields no stone for walls; and where ornament is to be considered, hedges are essential.

THE OSAGE ORANGE (*Maclura aurantiaca*).—This plant has some very good qualities for the purpose, but it requires *great* attention—more, it has often been found, than the generality of busy farmers can afford to give to it; if neglected, it runs wild, loses its lower branches, which at the best must be interlaced after the first cuttings, or they will admit the smaller animals. Another disadvantage is that it is "a greedy feeder," extends its roots far and wide, and exhausts the crop of its proper food to some distance in the field; the roots are also of an extraordinary size, frequently as large and thick as the wood above ground. It is, however, hardy, and if it loses the tips of the young shoots in a severe winter, it soon fills up with proper cutting. This plant is seldom liable to the complaint of sending up suckers. Where there is a determination to have it as a hedge, and *to give it the proper yearly attention*, it may do very well; but it is open to some objections, and it is late in coming forward in the spring and early in shedding its leaves. Our own opinion is, that in a vast portion of cases the Osage Orange, *without great attention*, will prove a disappointment; we express this with regret, for it has been extensively introduced. The experience of our friends at the west may be different.

THE BUCKTHORN (*Rhamnus Catharticus*) is a strong, quick-growing plant, and makes a good, close hedge; it is very hardy, and when properly cut looks extremely well. Botanists agree that it is a native of America, even as far north as Massachusetts, as well as of the north of Europe and Asia. Its bark and leaf are offensive to insects, and the borer, which has ruined nearly all the thorn hedges in this country, will not touch it. It will grow in the shade, and in almost every description of soil. It is easily grown and transplanted, of long life, has a thicket-like habit, has few diseases, and bears shearing into any shape. Its berries, the pulp mashed in a box with a light wooden pounder, sifted in water two or three times and then dried, are ready for planting. Dig good garden soil, and give it a dressing of manure, and plant them as you do peas or beans, placing the seeds two or three inches apart. They should be covered about an inch and a half deep, and if the rows are three feet apart the horse-cultivator may be used to keep the ground in order. One year's growth in strong land, or two in inferior, will make a growth that will give you plants fit for transplanting into hedge rows. Two seasons of shearing will develope its thorns, and commence to reward your labors.

The Buckthorn has been pronounced by those who have tried it, of very great utility and beauty, and it certainly comes as near to our wants as any plant which has yet been introduced. In the Essex (Mass.) Agricultural Society's Transactions of 1842, a correspondent says: "I do not hesitate to pronounce the Buckthorn the most suitable plant for hedges I have ever met with. It vegetates early in the spring, and retains its verdure late in autumn. Being a native plant it is never injured by the most intense cold, and its vitality is so great that the young plants may be kept out of the ground, or transported to a great distance without injury. It never sends up any suckers, nor is disfigured by any dead wood, needs no interlacing, and is never cankered by unskilful clipping." The desideratum for a good defensive and, at the same time, highly ornamental hedge, would seem to be solved in the Buckthorn and the Honey Locust. The seeds are collected and sold by the

Shakers, and could probably be procured through the agency of any seedsman. Its bark and berries are powerful cathartics. Mixed with alum the sap of the berries makes the color known to painters as sap-green, and the bark yields a fine yellow dye.

PRIVET (*Ligustrum vulgare*).—Mr. REID'S Privet hedges are the best we have seen; he has planted them extensively near his house, where they grow freely and make a truly beautiful spring, summer and fall hedge, leafing very early and retaining the foliage until the end of the year, being in fact almost evergreen, and truly a treasure.

THE HONEY LOCUST (*Gleditchia triacanthos*).—This plant Mr. REID has always considered the best for farm hedges, and we are disposed to agree with him; after twenty years trial he is satisfied that it is more easily kept and better adapted for a farm fence than any thing that has yet been used. When properly cut it looks as well us any deciduous hedge plant that is grown. When rapidity of growth and economy are both desirable, plant them six inches apart in the row, and let them grow four years without cutting; then crop them all to a heighth of five feet, which will produce a live fence of young trees; with *one* cutting every year, though two would be better, they will prove a protection for the life time of the owner. Planted four inches apart they might prove a perfect defence for a long time without the shears, but no hedge will long answer a good purpose of any kind without at least a careful annual cutting. The Honey Locust we consider preferable to the Osage Orange; in planting the seeds of each, care must be exercised to prevent the ravages of mice. Both may be sown where they are to grow permanently.

JAPAN QUINCE (*Pyrus Japonica*).—This beautiful plant grows very readily from cuttings, and forms a superb hedge. Mr. REID exhibits about four hundred feet of it in the highest perfection, a portion of it well grown about four feet high; it forms not only one of the most beautiful flowering hedges, (there being very few hedge plants that flower when cut,) but it is also one of the most valuable and close defences of any plant yet tried. Interspersed with a few running roses, such as the Multiflora or Prairie, it will produce the most ornamental of screens. No one who has not seen it can properly estimate its great value.

Beech, *Hornbeam*, and *Hawthorn* hedges may also be seen at Mr. REID'S in a highly ornamental state, and each of these plants is deserving of attention. The French employ them, as well as the Elm with great effect.

ARBOR VITÆ (*Thuja occidentalis*).—For an evergreen ornamental hedge, the Arbor vitæ is extremely valuable; for a screen to protect particular plants of a garden, a hot bed, &c., it has no rival; the American is the only one suitable for this latitude and further north. It makes a superb hedge, and is of rapid growth; purchased young, it is economical. It is offered every spring, from Maine, at one cent a plant for one year old seedlings, is easily removed from a distance, and, with the single slight objection of its getting somewhat brown in mid-winter, is among the most desirable for an American ornamental hedge. It will acquire great beauty even without any use of the shears, and is altogether less troublesome than any thing we know. Other Thujas, especially the *Stricta* are also valuable.

THE HEMLOCK (*Pinus Canadensis*).—Of all ornamental plants for this climate

the Hemlock stands among the first in beauty, but like all the most beautiful things in this beautiful world, it is among the most expensive and tedious to procure. Growing it from seeds is perfectly practicable, but nurserymen have not yet turned their attention much to its culture. In neighborhoods where it is indigenous, the practice is to procure from its native spots one and two year old seedlings, taking great care to bring as much of the leaf-mould and earth with them as is possible, and never to allow the exposed roots, if there should be such, to become dry. Plant (not too deep) at once, either in double or single rows; the latter is sufficient; shade, and mulch with stones, and in three or four years, with occasional trimming in June and August, you will begin to be rewarded by the most exquisite tints of any thing grown for this purpose. Great care must be exercised, as in all hedges, to give the proper tapering form to the mass. We can show in this neighborhood specimens of the Hemlock hedge that will defy criticism; unfortunately it is not a defence from cattle.

The Juniper (*Juniperis communis*) treated as a hedge plant is highly ornamental, almost equal to the above, but it is more transient and is apt to get too thick, and without much care to die out in places; this the Hemlock rarely does. The Juniper too is only adapted to the Middle States. As a single coned shrub, well cared for, opened every year, and cleaned of its fallen leaves which collect in its centre, it deserves a place in every garden.

The Yews.—The English and Irish Yews would undoubtedly make fine hedges in our climate. Mr. Reid has commenced his experiments with these, and sees no reason why they should not succeed as well here as in Europe; in very severe winters they become a little brown, but when placed in hedges they will stand the severity of winter better than as single plants. These like the Juniper would be only for ornament.

The Norway Spruce (*Abies excelsa*) makes a rapid hedge row, and where shelter from winds is required, we know of no plant better suited for that purpose, especially in northern latitudes. It will take much space if allowed to attain its full beauty and height; if a low screen be wanted, the leader may be annually stopped, and the side branches trimmed back the entire last year's growth; this makes a heavy, thick, blackish-green fence of great importance where high winds are offensive or injurious.

The Deodora will probably make a handsome hedge plant, but has not yet been sufficiently long in use, and is still too expensive.

Red and White Cedar.—These look well for a time, but in a few years drop their lower leaves and become unsightly.

We now come to our own favorite, and to our proposed

PREMIUM.

The Holly (*Ilex opaca*).—Among the neglected evergreens of our country, the American Holly stands conspicuous, both for its beauty at all seasons, its patience of the shears, and the red berry, valuable as it is for the eye, and acceptable to the winter birds. It is somewhat difficult to propagate from seed, at least to the uninitiated, but a little observation of its habit would overcome this. From two bushels

of seed, which we planted some years ago, but seventy-five plants were procured, though a variety of situations, in doors, and in frames, and out, were tried. These few came up in a Black Hamburg Grape vine border, *in rows* under the drip of the glass, giving a hint as to their wants. These plants were formed into a short hedge, which already gives evidence of its value and beauty, and will undoubtedly be a protective defence. The English Holly, most probably, would be hardy in a hedge. However that may prove, the *Horticulturist* hereby offers a premium of Fifty Dollars for the first perfect Holly hedge of the American variety, not less than one hundred feet in length, and four in height, that shall be exhibited; the plants to be raised from seeds of this year's growth.

Trimming.—All the hedges we have named above should be trimmed twice every year to produce the finest results, viz: in June and the middle of August; with the exception of the Osage Orange, which may be left till the middle of September. The last trimming is not only beneficial to their future growth, but it greatly improves their appearance, as they are not likely to push after that period; if not cut at this season they are loose, and have an unsightly appearance through the fall months. The trimmer before he uses his garden shears sets, with a crowbar, two poles, one at each end of the hedge, so that the tops are a little above the top of the plants; he then stretches a line from pole to pole as near the centre as possible, and settles it to a level. This gives the centre of the hedge, and is a good guide. The sides are then cut without other guide than the eye; the best form is that imitating the shape of a sharp gothic window. A hedge of this form ought never to be wider at the bottom than thirty-three inches to three feet; the pointed top will prevent snow from lodging. A pair of large hedge shears is usually employed by the trimmer, but a practiced hand will do it equally well and more rapidly with a *hook* made like a sickle, but with a sharp edge. We employ it advantageously to trim the Juniper into a cone after it is tied up. By a little practice an apparently large job is soon finished.

Hedges are important both as useful and ornamental objects; in the latter department they are too much neglected, as well before as after planting. We shall be contented if we have stimulated a few of those who have seen them in perfection to go and do likewise-ly.

For garden hedges there are many plants that suggest themselves for use. The Honeysuckles, particularly the Chinese evergreen, may be thus trained to great elegance; the Evergreen Euonymus, or Strawberry tree, the Tree Box, the Althea frutex, Syringa and Lilac, the Snowball, and the Deutzia scabra, the Yucca, especially at the South, Savin, the Phillyreas, with various others, may be adopted on a small scale to great advantage. The Pyracantha, with its beautiful berries, should also not be forgotten, and the small golden Willow makes a neat little hedge, looking remarkably well even when the foliage is gone.

In some of the foregoing remarks we have been obliged to differ from previous writers, but as our object is solely to elicit the truth, we shall be glad to have the results of *experience* from well informed correspondents in the varied climates penetrated by our pages.

THE HOWELL PEAR.*

BY P. BARRY, ROCHESTER, NEW YORK.

We have no hesitation in pronouncing the *Howell* as the most beautiful, and one of the finest Pears of American origin.

The first published account we have of it is in vol. 15 (1849) of Hovey's Magazine of Horticulture, by S. D. PARDEE, Esq., of New Haven. The seed was planted by the late THOMAS HOWELL, Esq., in his garden in New Haven in 1829 or '30. Mr. HOWELL'S premises lay adjoining those of the late Gov. EDWARDS, some of whose seedling Pears have obtained such celebrity, and it was about the time when the Governor's first seedlings began to bear that Mr. HOWELL planted his seed. The variety from which the seeds were taken was called the *Jonah*, a hard, tough winter Pear, producing enormous crops every year—on one side of the Jonah, from which the seeds were taken, stood a *Summer Bonchretien*, and on the other a *Virgalieu* (White Doyenne); we may therefore presume the Howell to be a cross between these. The original tree, appears from Mr. PARDEE'S account to have borne when eleven years old, and at the present time, if alive, cannot be over twenty five years old.

The fruit has borne with us for several years, and under various circumstances; it has also borne in various parts of the country, and we have not heard a single unfavorable report of it. We are inclined to believe that it will prove to be one of those varieties which can be successfully grown in every Pear growing country and locality.

The point is large, obovate, pyramidal, very regular, and uniform in shape. Stalk about one inch and a quarter long, curved, moderately stout, and inserted without depression. Calyx open, in a shallow, smooth, regular basin. Skin very smooth, greenish, becoming pale lemon yellow or straw color at maturity, sprinkled with small russet dots, and has a faint blush on the sunny side, in some cases a clear red cheek. Flesh fine-grained, white, juicy, melting, sweet and pleasantly but not highly perfumed. In eating, from the first to the last of September, and sometimes into October.

Last season we gathered from a single graft set on an old tree in 1852, *three pecks* of magnificent specimens. We picked a few on the first of September, and the balance on the tenth; they were then quite green, but being exposed to the winds we feared some accident, and took them off sooner than we should have done otherwise: but they were picked just at the right time, they ripened off to the highest perfection in a cool closet off a living room, and kept a month. The tree is an upright, vigorous grower, with beautiful wood and foliage, succeeding equally well on Pear and Quince.

* See Frontispiece.

It was brought before the last Pomological meeting at Boston, and we extract from the proceedings the following description which it elicited:

Mr. MANICE of New York. I think it is premature to place it on the list for general cultivation.

Mr. BARRY of New York. I regard it as a very fine variety, and should be in favor of its adoption on the list for general cultivation.

Mr. LINES of Connecticut. It has been in cultivation for a number of years, and is regarded as a very superior pear; has all the desirable qualities of a good fruit, large in size, and is a good and uniform bearer. I do not think there would be any hazard in putting it on the list for general cultivation.

Mr. BERCKMANS of New Jersey. In my opinion it is one of the best of pears. I can compare it favorably with any other in my garden. The tree is vigorous enough, and the fruit possesses excellent properties.

Mr. CLARK of Connecticut. I have paid considerable attention to the cultivation of this pear for a few years. I find it to grow admirably on the quince, as well as any on my grounds. It is a very early bearer. I have found the trees, two years from the graft, to produce fruit on small stocks. I consider it a very valuable variety; not, perhaps, so good as some others, but think it well worthy of being put upon the list for general cultivation.

The PRESIDENT. I entertain a very favorable opinion of the Howell. We esteem it one of the very best we have; having all the characteristics of an excellent, hardy tree, the fruit adhering well, and, when properly ripened, a very fine variety.

Nr. HANCOCK of New Jersey. I have a very favorable opinion of it. But it strikes me that it had better go on the trial list.

Mr. HOVEY of Massachusetts. So far as that is concerned, I believe no one will say it is not one of our finest pears. But I would not adopt the rule of putting pears on the list for general cultivation which have been but a few years cultivated. I can say, however, that this pear is unexceptionable in regard to its general qualities, but I am not prepared to say that it is as good as the Lawrence. It comes in September, in a season when we have an abundance of pears; that is the only objection I know of.

Mr. REID of New Jersey. I would second Mr. Hancock's motion to put it on the trial list.

Mr. MANNING of Massachusetts. I have tested it, and have a high opinion of it. I think it rather premature to place on the list for general cultivation; but should be glad to see it on the list of those that promise well.

Mr. WALKER of Massachusetts. I do not feel anxious to put pears on the list for general cultivation, unless they have been well tried; but was ready to sustain the committee who reported that as being one of the pears for general cultivation, and at the recommendation of persons well acquainted with it, put it on the list, that it might come before the convention in due form. I should feel rather better pleased to have it placed on the list of those that *promise well*, than to have it, at once, on the other list. As I am up, it may be well to say that it is one of those varieties that produce the fruit uniformly, and of a fair size. There are no small ones on the tree—all are large, and apparently cast in one mould; and the more I have seen of the pear, the more I am disposed to think it will be advanced among the best pears in the country.

It was unanimously voted to place this variety of pear on the list of those that *promise well*.

BRIEF REMARKS ON CULTURE OF THE LUCULLIA GRATISSIMA.

BY WM. BERGHOLZ, GARDENER TO H. CHAPMAN, ESQ., MONTREAL, C. E.

In many gardens this precious species of the Rubiaceæ is treated as a stove plant exclusively. The result of it, however, in most instances, is not satisfactory; the blossoms appear but scanty, and as it is subject in a great measure to those various insects—general nuisances of hot-houses—the gardener soon abandons the idea of cultivating it, having no time to attend to the regular cleaning of it. Though a native of the East Indies, the *Lucullia gratissima* does not require the same high degree of heat as other tropical plants, and I have generally cultivated in a temperature of from three to six degrees Reaumur, amongst Camelias and New Holland plants; the result of this treatment is quite different. Its beautiful bright rosy blossoms, however, a little later are perfect, and the plant is not molested with its destructive enemy, the black fly. The month of April, the time when its dormant state is over and its growth commences, is the proper season for repotting. It likes a rich soil, and thrives best in a mixture of one-third old rotten cow dung, one-third peat, and one-third loam, with a proportional addition of river sand. A good drainage is a great matter, and the pots should be filled one-fourth with crocks and peat crumbs. After repotting, the plant should be placed as near as possible to the light. Another important matter is the pruning. The proper time for that operation is soon after the repotting, when the plant shows signs of the young roots having spread. The pruning done at an improper time, for instance immediately after the blooming, or perhaps at the time of the repotting, proves generally fatal. The middle of June is about the time when it should be taken into the open air; however, this depends on the season. There forced to gather new strength, it is necessary to apply a gentle bottom-head, and as soon as sufficiently accustomed to the open air, mild rains and sun may have free access. In hot weather it is advisable to syringe in the morning and evening. As soon as nature obliges us to bring our tender wards back to their winter quarters, it should be made a point to give the *Lucullia gratissima* a place as free as possible, and near to the light, in a house similar to the one recommended above. In a short time after, the blossoms will make their appearance, and special care should be taken never to let nourishment be wanting. Not seldom will it be observed that the blossoms wither and drop off before opening, but a careful examination will show that it always is the consequence of some want of either light or nourishment. After it is done flowering the plant requires rest for some time, and should be supplied but very seldom with water until April, when the culture as above described should be recommenced. Its propagation is easy by cuttings of half ripened wood under hand bells. It is altogether a plant that well deserves a place in our affections, its culture being easy, and its beautiful fragrant flowers for weeks a precious ornament to our green-houses at a season when flowers are generally scarce.

IMPOSTERS.—THE LAWTON BLACKBERRY, &c.

BY A. C. HUBBARD, DETROIT.

For one I feel under great obligations to the *Horticulturist* for your very sensible remarks in your leader for June, exposing the many frauds and species of deception practiced upon nurserymen and the public. In passing around the corner from Jefferson Avenue towards the post-office in Detroit this spring, I observed something of a crowd upon the sidewalk, and going near and looking over to see what attraction was there, I saw a flaming picture of the *Connecticut Mammoth Grape* fastened inside of the lid of a large black trunk, which was thrown open—the trunk being filled with the roots of Grapes, represented to bear fruit of surpassing excellence, and size enormous. Knowing the description, I passed along, when a friend called to me, with one of the roots in his hand, and said, see here, what do you think of this Grape; they are selling them for two dollars and a half a plant. Said I, don't you buy it; it is certainly worthless, and besides if you wish that variety we have the same kind we should sell you for twenty-five cents. Well, says he, I am sold; I have just paid two dollars and a half for it. The same man kept his station there for nearly or quite two weeks, and invariably had a crowd around him; how many he sold I am not informed, but he did a large business—his trunk was replenished every morning. Now I venture to say, that if it had happened that a nurseryman had by some accident sold a Connecticut Grape of the same kind as above described, for an Isabella or a Catawba, for two or three dollars, he would have been set down as a gross deceiver, and a man not to be trusted.

A word with regard to the Lawton Blackberry. We had a large pot of these Blackberries in the green-house this spring, which was observed by a Scotch gardener whom we had just employed; aye, he says, and here you have the Scotch Bramble. No, I said, it is a new variety of the Blackberry; a seedling, a very superior kind. Aye, but it is the Bramble; I know it; I have seen them filled, just filled, with fruit as big as that (measuring off two-thirds of his thumb); aye, he says, you would have to make two bites to every berry. He went on then describing how it branches out, and how it was completely filled with fruit, so that the branches would bend over to the ground, and described the enormous quantity obtained from one branch, their delicious flavor, &c., &c. Upon reading the communication from U. Adrian, Michigan, it occurred to me that it might be after all the Bramble, and have been imported from England with shrubbery by the former proprietor of the farm, where the plant was discovered.

RUSTIC ORNAMENTS.

Many good pictures exist of Rural Ornaments for gardens, and yet strange to say, rarely are perfect and satisfactory specimens to be seen. The fastidious eye is offended by some detail in many instances; in others the wrong situation has been selected, or the place is in disorder with neglected vines. Some one has happily

said that it is difficult to look at any objects with pleasure (unless where it arises from brutal or tumultuous emotions,) without feeling that disposition of mind, which tends towards kindness and benevolence, and surely whatever creates such a disposition, by increasing our pleasures and enjoyments, cannot be too much cultivated. Every one has seen specimens of castings in Berlin iron, but large examples rarely find their way to this country. The annexed Fig. 1 represents a garden gate between the residences of two intimate friends on the banks of the Elbe near Dresden, in Saxony; each family has a key, and the gate being kept always locked intruders are excluded. The material is Berlin iron of the finest kind; the taste appeared to us perfect, and may safely be imitated. The castings of lamp-posts and various other things in Berlin are often examples of perfect beauty.

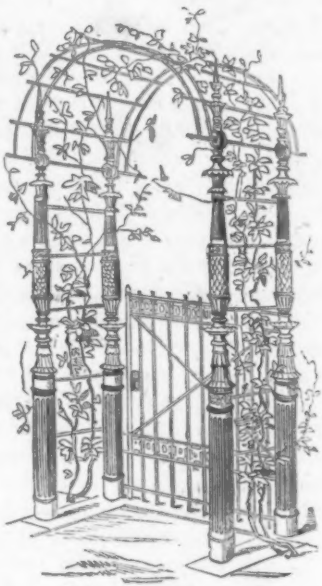


FIG. 1.

FIG. 2.

In the same garden occurs a beautiful summer house, Fig. 2. The front with the statue faces the house; ascending the stairs you find yourself screened from the dwelling and overlooking the beautiful Elbe below. The summer house stands on a terraced wall at a bend of the river, and you enjoy a view up the stream towards the virgin castle of Königstein and Saxon Switzerland, small steam and sail boats passing almost at your feet.

Our third example (Fig. 3) is a garden arbor, partly of carved wood, which

stands near the avenue leading from the Brandenburg gate to the Thier-garten near Berlin.

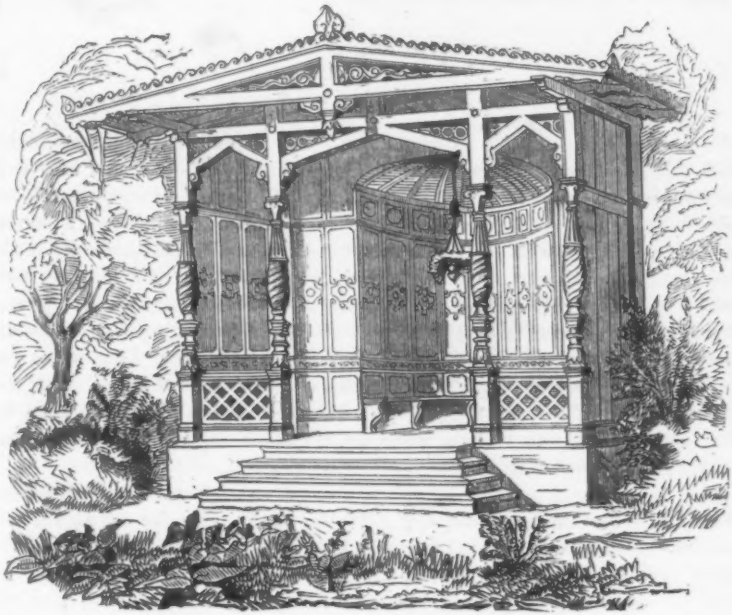


FIG. 3.

Berlin is celebrated for its manufacture of rustic seats, tables, &c., no less than

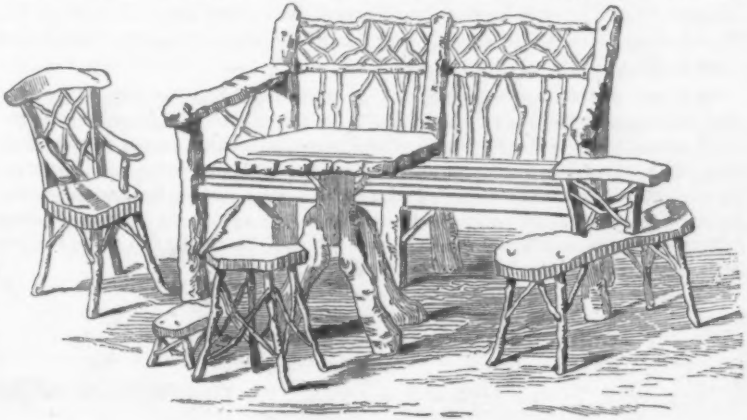


FIG. 4.

for its drawing room furniture. They are very tempting to the traveller; some of them found their way by the circuitous route of Bremen to our own premises. Fig. 4 gives a fair representation of the more rustic.

SOME NEGLECTED NATIVES, &c.

Dicentra spectabilis is justly considered one of the handsomest hardy herbaceous plants ever introduced. But we must not lose sight of some of our own natives of the same natural order, and little if any inferior in beauty. *Dicentra cucularia*, and *D. Canadensis*, two white species, are very beautiful. *D. eximia*, a purple species, flowering most of the summer is quite a gem. *Corydalis glauca*, with orange and purple flowers, produced in great abundance, and lasting nearly two months, is very pretty indeed; and *C. bulbosa*, flowering early in the spring, though of low growth, attracts every eye when in flower. *Adlumia cirrhosa*, named after Adlum* the grape grower, though not particularly beautiful in its flowers, for the graceful elegance of its foliage, and slender climbing stems, is perhaps only exceeded by the Cypress vine; while the commoner forms of *Fumaria* afford excellent materials to those who strive to excel in making nosegays, or—to be more Frenchy—bouquets.

Myosotis palustris, the true "forget-me-not," I met this season in a friend's garden in a more interesting way that I ever did before. At the entrance as we went into the enclosure, an oval bed six feet long met us, and compelled us to deviate from our course, as if determined that all should note well its contents; and there in the greatest possible perfection bloomed our humble friend, covering the whole bed with its beauty. It was under the shade of some trees, and was, I believe, frequently watered. It was a good idea to place such a mass there at the entrance, to be like other beauties of our younger days, seen first and forgotten last. Fanny Osgood gives the following anecdote of the origin of its name, which casts a poetry around its history painfully pleasing:

"It is related that a young couple, who were on the eve of being united, while walking along the banks of the Danube, saw one of these lovely flowers floating on the waters, which seemed ready to carry it away. The affianced bride admired the beauty of the flower, and regretted its fatal destiny. The lover was induced to precipitate himself into the water, where he had no sooner seized the flower than he sank into the flood; but, making a last effort, he threw the flower upon the shore, and at the moment of disappearing forever, he exclaimed, '*Vergils mich nicht*,' since which time this flower has been made emblamatical, and taken the name of '*Forget-me-not*.'

'Lay to thy heart this token flower!
With love's own tears its leaves are wet.
'Twill whisper in its dying hour,
Do not forget!' "

The creeping Valerian (*Palemonium reptans*), the Virginian Lungwort (*Pul-*

*More correctly perhaps from adlumino, to fringe with purple.—Ed.

monaria Virginica), and several other plants, have also the name of "Forget-me-not" applied to them. In ordering the plant of their nurserymen, our lady friends should also note its botanical name. P.

THE CURCULIO.

BY HENRY CROFT, VICE-PRESIDENT OF THE TORONTO HORT. SOCIETY, TORONTO, C. W.

I NOTICE in your June number, just received, a short letter from Mr. BACON on the subject of the Curculio, and a proposition to employ sulphureted water, such as that of Avon for syringing the Plum trees; and it may not perhaps be altogether uninteresting to you to know that a series of experiments are being made on this subject by a few amateurs of this city.

Some years ago in a paper published in the *Canadian Agriculturist*, I endeavored to account for the supposed efficacy of the lime and sulphur wash by the formation of a chemical compound—the sulphide of calcium, its gradual decomposition on exposure to the air, and slow evolution of sulphureted hydrogen, a gas which is well known to be highly destructive to animal life. My experiments on this preservative were quite unsuccessful, and I was equally unfortunate in driving away the "Turk" by means of assafœtida, a substance which you will allow is nearly unsurpassed as to odor.

Last year a lady amateur of this town tried, at the suggestion of a chemical friend, the action of sulphureted hydrogen, as evolved from the proper mixture, and subsequently of a peculiar compound well known to chemists—the hydrosulphide of ammonium. The trees thus treated were loaded with fruit, those unprotected had none!

This year two or three persons are trying a quantity of the hydrosulphide, and as soon as the fruit is thoroughly out of danger, I will send you the results. In my garden I am trying it on several trees, leaving others unprotected. A few ounce phials are half filled with the liquid hydrosulphide, diluted with about two parts of water; every three or four days I add a little more of the liquid, or as often as its odor begins to diminish. It is scarcely necessary to remark, that the delicious scent of the garden is by no means improved by the process.

It is almost too soon to say any thing with regard to the result of my own experiments, but I may state that on several fine Plum trees, on which last year I had to search for a quarter of an hour in order to find an unbitten Plum, I have now to look almost as long to find a bitten one. On a "Lawrence" the result has not been so favorable, about one-fifth or less being bitten; last year I had none on this tree.

At the end of the season I shall endeavor to obtain the experience of the different amateurs who are now trying the experiment, and should you think it desirable, will forward to you the results.

The substance employed could be made at a very small price, if there should arise any demand for it. At present chemists generally make it for themselves.

A TOUR ROUND MY GARDEN.

BY ALPHONSE KARR.

A *Tour Round My Garden* is the title of a little new French book, the name of which attracted our attention, and from which we shall make a few extracts. It may be said to be *intensely French* and tolerably amusing, but instead of facts and information, it is mainly humorous or satirical; the satire is however, so good humored and self satisfied, that while it attempts to laugh at care and human nature, and philosophises upon the follies of the world and of all who do not prefer a garden to everything else, we cannot but be entertained. The following is the best we could select for translation.

THE ENCROACHING VISITOR.

"The sun has disappeared behind the high trees some minutes since, so that I should not have recognized the fennel and the Angelica if I had not been pretty well acquainted with them. The weather is hot and close: this is a capital opportunity for testing the phenomenon of the fraxinella.

"Varai, bring me a taper."

"Monsieur, there is somebody knocking at the garden gate."

"Give me the taper then, and go and open it."

"Monsieur, I have lit the taper twice, and twice the wind has extinguished it. Only hear how they are knocking!"

In fact, somebody did knock—almost enough to break the gate down.

"Varai, go and open it, pray." A man presents himself, whom at first I did not recognise.

"Well Stephen, my good fellow, what a while it is since I have seen thee! I am going to ————, and I could not pass so near thy hermitage without passing a few days with thee."

Only at this moment I recognized Edmond. You know, my dear friend, or else you do not know, what Edmond I mean. Perhaps, like me, it would be necessary for you to have him before your eyes to remember that he exists. He had never taken the liberty to *tutoyer* me in his life. I remember that he once borrowed a few livres of me, of which he never said anything since. Nevertheless, he gave his valise to my servant, and said, "Thingummy! What's your name? Pay the coachman and give him something to drink. Ah! by-the bye, Stephen, I can't think why thou dost not get the road put to rights that leads hither, that is, if thou canst call it a road; it's enough to break one's back. Fortunately, I have not my horses here. I have left them at the top of the hill. Hast thou dined?

I had been for some time endeavoring to recover from the stupor into which this arrival or rather this invasion had plunged me, and I racked my invention for a sentence in which there should be neither a *thou* nor a *you*, not being willing that the said Edmond should force me to *tutoyer* him, and being equally unwilling to offend him by not thee and thouing him after he had made use of that mode of speaking towards me, which would have appeared to me equivalent to witholding your hand from a person who stretches out his to you, an insult that can only be caused by a deep resentment. I thought I had discovered a sentence.

"Yes, but I have not supped."

"Ah! thou suppest, dost thou? Well, come, that is not too savage; I shall find thee better than thou art reputed to be. I am dying with hunger."

I made a signal to Varai to get supper ready, and we went into the dining room. The cloth was soon laid. Edmond poured himself out two glasses of wine successively. "What wine is this?—Bordeaux—Dost thou like Bordeaux?—Hast thou no Burgundy?

Shall I confess my friend, that I felt myself blush whilst humbly stammering that I had but one sort of wine? And I must tell you all, I was very near making an excuse, by saying that my wine-merchants had disappointed me, or some other such subterfuge as is employed by people in my situation.

"Why didst thou have thy dining-room of this dark-colored wood? I have a charming one; it is all in white stucco."

"That must be very handsome."

"It is magnificent Upon a mahogany sideboard are Bohemian crystals of the greatest richness.

At this moment I heard in the garden a noise like that made by a wild deer followed by her fawn when roused from a thicket.

"What *can* that be in the garden?"

"Ah! cried Edmond, I'll lay a wager it is Phanor."

"What is Phanor?

"A superb *pointer*, an English dog."

"But he is ruining my garden!"

I rose in haste. Edmond followed me after finishing what was in his plate, saying, partly to himself, "It's very astonishing! he generally keeps to the walks." When we gained the garden, we could hear a wild chase across the masses of flowers: a cat first appeared followed by a great dog, which Edmnod called to in vain; the cat dashed into another clump of flowers, and Phanor followed closely at her heels.

"Ah! I'm not astonished at it now; he can't bear cats. Phanor! Phanor! here, Sir!"

The cat jumped over a wall. Phanor sat, eagerly looking after her, at the bottom of it. At length he obeyed the voice of his master; but as he found he had a good chance of being beaten, he slunk back and ran away.

"In the name of Heaven, Edmond, lay hold of your dog, he will break my best rose trees."

"Phanor! come here!""

"But if you show him your cane, he will not come."

"Ay, but he *must be made to come*. Phanor, here! Phanor, here!"

"Don't threaten him—call him."

"I must correct him here on the spot. Come here, Phanor!"

"Well, but correct him when you have got hold of him."

"No, no; he must come in obedience to the cane. Oh, I never let dogs have their own way. Phanor! Phanor, here!"

The dog took a few steps towards his master, but on seeing the cane, again set off. Edmond, in a rage, threw his cane at the dog, which missed him, but knocked off the head of a lilly in bloom. Edmond now pursued the dog exactly as the dog pursued the cat some minutes before; both trampling as if in emulation of each other, upon my most beautiful plants. At length, Varai seized the dog in his passage and held him fast. Edmond rushed towards a tree and tore of a large branch.

"Oh, my Toussaint cherry-tree, which ripens its cherries in October!"

He beat his dog with the finest branch of my cherry-tree.

"Ah, master Phanor! I'll teach you to destroy gardens!"

The evil was done and was irreparable; I demanded grace for Phanor, if it were only for the sake of not hearing him cry. Besides, the branch of the cherry-tree was broken on Phanor's back, and I did not know what tree Edmond would apply to next for a weapon. "Come, come, Edmond, don't beat him any more, the evil is done; besides, it may not be so serious as you imagine."

"Oh, it's not for the few nonsensical bunches of flowers he may have destroyed, my dear Stephen; it is because he disobeyed me that I correct him."

"Well, then, I beg you, Edmond, do not flog him any more!"

"Let him alone, let him alone; I want to see if he will obey me now."

"I ask it as a favor, that you will not make the experiment."

"Phanor, here! Thou shalt see that he will obey now. Here, Phanor! Why here! Phanor!—here! here! here!"

Phanor takes to flight once more, Edmond pursues him afresh, and the chase becomes as warm as ever through my shrubs and flowers.

Varai picked up the gentleman's cane, and held it ready to give him when he wanted to beat his dog, for fear he should borrow another from one of my trees. But Varai was more ingenious than I was; he opened the garden-gate, and Phanor, as he passed near it, closely pursued by his master, perceived the chance, made a bolt and disappeared. Edmond and I returned to the dining-room.

"It is astounding," said he, "a dog who obeys at the least sign! Well, come, we must make the best of it; let us resume our supper. Thou shalt see how I will make up for lost time. But, shouldst thou not send some one to look for Phanor? I am afraid he will be lost in this country of wolves, where he has never been before.

"Edmond, Varai is the only servant I have, and if he goes to look for Phanor, we shall have no supper. We will think of him presently."

"Ah! but I hope he won't be lost though!"

We resumed our repast. After Varai had, as usual, handed me some wine and water, he offered some to Edmond. "No thank you! no, thank you, my man of color, I never drink water.

"All the wicked are drinkers of water,
As is well proved by the deluge."

Give me a little of that omelette. Hum! this is an omelette aux herbes! Now, dost thou know how *I* like an omelette? The one that is good, really good, is an omelette aux truffes! that's what I call an omelette! The table service is not bad; I made myself a present the other day of a pretty service in vermeil; one cannot have anything but vermeil, now porters eat out of silver."

All the supper-time this was the nature of his talk; and, to my great joy, as soon as the meal was over, he complained of being fatigued, and requested to be conducted to his chamber. Varai was soon back; Mr. Edmond wanted another candle, being accustomed to leave one burning; he could not endure darkness. Then Edmond wanted his bed warmed; then he must have some eau sucree, in case of feeling thirsty in the night; then another blanket and an additional pillow; and the chimney must be stopped up to keep out the air. At length he got into bed, and I quickly sought mine, for fear Varai should ask me any questions about this gentleman, as this would only increase my ill-humor.

He is come to pass a few days. What does he mean by a few days? Why did not I at once think of telling him I was under an engagement to set out to-morrow on a journey? Now it is too late.

The dog came back, was tied up, and passed the night in howling in such a horrible and melancholy manner as would affect the strongest nerves.

In the morning, when Varai informed him that breakfast was ready, Edmond cooly replied, "he could not get up so early as that;" breakfast was put off an hour. When he came down, I asked him if he had heard his dog?

"Oh! yes," said he; "poor Phanor! it's only because he does not know the house; he will behave better in two or three days. Tell me, now, blackey, what you have given him to eat?"

"I got him some dog biscuit of a neighbor."

"Oh, that will never do; he must have some soup, and that made thick, mind. Poor Phanor! he is not accustomed to dog biscuit—"that's all very well for nigger dogs."

We went into the garden; Varai brought us pipes. He condescended to take notice of a large cherry-tree pipe with its amber mouthpiece, of the size of an egg, and said, "Ay! I have one with a mouthpiece twice as large as that. Thy garden is pretty, Stephen; it is not large, but it *is* pretty. Well, well, well, and so thou amuseth thyself thus, eh? in cultivating flowers in this way, eh? Poor fellow! I have an uncle, now, just in the same way; he has a handsome garden, water and woods; I must bring Master Phanor into order before we go there; my uncle would not laugh if he played the same game in his garden that he played on his arrival here last night."

Whilst saying this he plucked a rose and put it into his button-hole.

"What are you about there?"

"What am I about? why, I have gathered a middling sort of rose to wear in my button-hole."

"A middling rose! it is the last that tree will bear this year, the most beautiful of white roses, *Madame Hardy*. I hoped to see that for five or six days longer; I shall not see another for a year to come."

"Why, thou art worse than my uncle! Don't gather thy roses! Well, I won't touch another. What dost thou *do* here? How can we amuse ourselves?"

"We do not amuse ourselves here."

"Ah! well, never mind; I can read, I can walk. I suppose thou dost not keep thy horse?"

"No."

"That's a pity."

Such is my present melancholy condition, my dear friend—when it will be over I cannot tell. I seek every justifiable means of getting rid of this intruder, but he does not even tell me *when* he means to go.

Two shots in the garden caused me to hasten to see what is going on.

Nothing less than my friend Edmond practising in the garden, and who just killed a beautiful blackbird. This blackbird was, when alive, the leader of my band: I felt more sorrow than I will venture to tell you when I saw him lying on the ground, with his glossy black feathers stained with blood. All the cares I had taken for several years that the birds should find in my garden a sure and tranquil asylum were rendered abortive by this firing of the gun,—the more so from its appearing a kind of perfidy, a meditated murder. In every part of the neighborhood, the trees are cut down, birds are taken in snares and traps, or shot with guns. Here alone I have preserved large trees and thick bushes; here I have multiplied service and holly-trees with their coral berries, hawthorns with their garnet fruit, elders and privets, which bear umbels of black berries, the burning-bush with spikes of fire-coloured berries, ivies whose fruits become black with frost, laurustines with dark-blue fruits, azerolias or small medlars covered with little red apples,—in order that they might find food in abundance during the whole win

ter. In certain parts of my rivulet, I have even lessened the depth that they may bathe without danger.

And how richly have all these cares been repaid! In winter, the redbreasts come and live in my greenhouse, and familiarly hop about in other parts of my dwelling. In summer, the linnets make their nests in the bushes, and the wrens in the angles of the walls. All allow themselves to be approached and to be seen; all seem to fly around me without flying away, and all fill my garden with enchanting music.

Instead of being seated, crammed into a theatre without fresh air, to hear for the hundredth time the same tenor, with the same apricot-coloured tunic and the same chocolate boots, sing the same air, accompanied by the same cries of admiration of people who wish to make part of the spectacle, I had three operas a day.

In the morning, at the break of day, the chaffinch warbled upon the highest branches of the trees, whilst the flowers open their corollas, whilst the rising sun tinted the heavens with rose and saffron.

Amidst the ardour of noontide heat, the male linnet, concealed beneath the shade of the linden-tree, raised his melodious voice, whilst his mate sat upon her eggs in her little nest of hair and grass.

But in the evening, when everything slept—when the stars sparkled in the heavens, when the moonbeams played through the trees, when the evening-primroses with their yellow cups exhaled a sweet perfume, when the glowworms twinked in the grass, the nightingale raised its full and solemn voice, and sang throughout the night its religious and loving hymns!

And this Edmond comes with his gun to alarm, perhaps to send away all my musicians, to falsify my long and careful hospitality, which is now nothing more or less than treachery, since without it perhaps, without the confidence it had inspired, my poor blackbird would not have allowed any one to come near enough to him to make him so easy a victim.

What would I not have given to make all my birds, all my melodious guests, understand that it was not I who had made that report, it was not I that had committed that murder! to make them understand that they might come back, that I am not a traitor, that they will find peace and shade here again, that they may come in the winter without mistrust to feast upon the berries of my trees.

How is this all to be repaired?

That chaffinch, which yesterday came to my very window, will never come again; he will depart from me and from my house; next year he will not again build his nest in that great elm, in which he has been accustomed to built it every year.

I got as quickly to Edmond as I could, and entreated him to suspend his sport, and he laughed at me. I was obliged to say that I insisted upon having no guns fired in my garden. Edmond replied that I abused the circumstance of its being my garden. It appeared to me that the abuse was on his part. Nevertheless, his reproach hurt me. I left him in the garden, and shut myself up in my study. I then questioned myself whether he really was in the wrong; if hospitality did not impose duties, difficult, it is true, but sacred, and if I had fulfilled them? I inquired of myself what are the duties of hospitality. After serious examination, I did myself this justice, that, with the exception of washing his feet, as the ancient Hebrews did, I had performed, with respect to him, and in the most scrupulous manner, all the laws of hospitality. But still that reproach wounded me; he is in the wrong, but he believes that I abuse the circumstance of its being my garden; I have a great mind to go and ask his pardon!

CONSTRUCTION OF ROADS AND WALKS.

BY WILLIAM SAUNDERS, LANDSCAPE GARDENER, GERMANTOWN, PHILADELPHIA.

THE proper introduction of walks and carriage roads is a matter of great importance in the general arrangement of rural residences, and although few subjects in this connection have been more frequently dwelt upon by garden authors, there is still much room for improvement. We ignore all exaggerated imaginary examples either in the exposure of error, or the promulgation of truth, and endeavor to give all our statements a tangible basis, in order to render them of direct practical application to the subject under investigation. This much is mentioned that we may not be accused of "making a case," in stating that we have seen a path leading to a house only a few rods distant from the street, forming a series of short curves, although the boundary gate and the entrance door of the house were exactly opposite. It is, however, much more common, and equally a perversion of good taste, in such cases, to find a circular grass plat, or flower bed, which has to be circumambulated before reaching the house. Similar unmeaning routes are frequently taken with carriage drives. The furthest point from the house being selected for an entrance, the road traverses the whole extent of the place before reaching the mansion, cutting up what would otherwise form a pleasant lawn, and preventing the introduction of private, secluded shade walks, so desirable in country residences. It is not intended in this number to treat on the present head with regard to picturesque effect, but rather to offer a few practical remarks on the construction of good, serviceable roads.

A smooth, firm, dry walk is one of the greatest conveniences, as a soft, muddy, damp walk is one of the greatest annoyances; and although much personal comfort, and enjoyment of pleasure grounds, depends upon good walks, there is much need of information on their management, judging from what we daily see, and the many complaints that reach us relative to their expense and inefficiency. In this, as well as in many other operations connected with rural improvements, we shall be much mistaken in the true value of a result, by a knowledge of its cost. There are roads of the worst description that have been made so at great expense, while others of great efficiency have cost a comparative trifle. There are principles to be recognised in road making as well as in every other operation, and when these are not attended to by the constructor, a good road is as much a work of accident as design. The construction of a road will of course depend, to a certain extent, upon the amount and kind of travel for which it is to be used. We frequently see a narrow walk made as strong and heavy as a public highway; without advising superficial workmanship of any description, we would guard against unnecessary expense. A road to be traversed by light carriages will not require so strong a foundation as one for

the passage of heavy wagons; again, those for foot passengers may be of a different character. As coming more directly within the scope of the "Horticulturist," the first and last mentioned varieties are those to which our remarks will be chiefly directed.

The chief object to be kept in view to maintain a good road is to keep it dry; no road can be kept in good order, or prove entirely satisfactory in all seasons, unless carefully protected from water. This is best secured by leaving the surface slightly convex, and keeping it rather above the adjoining ground level. Our remarks will probably be better understood by reference to the following cross sections, Fig. 1

FIG. 1.

FIG. 2.

being the most general method of forming carriage roads, and Fig. 2 the mode that we recommend above.

All the rain that falls on a road formed similar to Fig. 1 either sinks into the road or accumulates at the sides, washing the surface material, unless intercepted at short intervals with cross gutters on the road and deep notches in the edgings, both of which are unsightly and inadmissable in a well kept carriage drive. Expedients in the way of underground drains running parallell with and having occasional inlets from the road, are frequently resorted to, with a view of modifying these defects. But we would promulgate as a dogma, that covered drains for the removal of surface water will never prove satisfactory in this climate. We doubt not that all who have had experience in these matters will willingly endorse this opinion.

Objections have been urged against rounding the centre of roads, on account of the inconvenience of travelling on any portion of their surface unless in the middle. When a road is rounded in an extreme degree this objection is very just, not only on account of the inconvenience, but also from the injury to the road by the travel being mostly confined to the centre, where, indeed, is the only place a vehicle can run upright. A rise towards the centre of one inch to the yard will be found sufficient to carry off water, and form no impediment to travel over any portion of the surface.

It will be observed in Fig. 2, that the excavated surface upon which the road is to be formed, is rounded in the same degree as the exterior surface of the finished road. This form of excavation has often been recommended as a means of directing the water that sinks into the road to the sides. A slight reflection will show that no benefit of the kind can be obtained, since the water that finds its way through the hard and compact material of which the road is formed, will not be arrested in its downward progress by the soft soil. This supposes a state of things which the chief aim is to prevent, for a road must be in a bad state when water finds a passage thus freely through it. But we would give the foundation of the road this form to allow an equal depth of material over the whole, that it may be equally strong throughout.

The outline of the road having been resolved upon the edgings should be brought

to the desired heights and level. As already observed, the depth of material required will depend upon the intended use. Twelve inches of material will form a road sufficiently strong for all purposes required on a private residence. To secure a solid foundation a layer of unbroken flat stones, averaging six inches in thickness, should be laid with their broadest faces downwards, as close together as practicable, and all interstices well rammed up with smaller pieces. This foundation will form a compact pavement through which the under soil will never penetrate, as is the case where small stones are used, the soil being pressed up between them alternately mixing with the outer covering of the road. This understratum may in fact be considered the actual road, but in order to keep it from derangement it is necessary to form a compact homogeneous surface as a protection, for if the wheel of a wagon or the foot of a heavy quadruped were to press on one extremity of a large stone, the other end would be raised, and the whole disturbed. Hence firmness is necessary, and to secure it we must reduce the surface material to a size below that of the pressing point, that no disarrangement may occur from leverage or compound action. To secure such a surface a layer of broken stone should be spread over the foundation, and this in turn covered with gravel or something similar. These broken stones should be procured of a tough as well as a hard nature. Many hard stones are brittle, and by pressure are easily reduced to powder. A thickness of four inches of small angular stones will be sufficient; these would in time of themselves become solid and compact, but to render the road more immediately agreeable, both with respect to convenience and appearance, a further covering of gravel may be applied to bind and solidify the whole.

Much depends upon the quality of the gravel; rounded pebbles are by themselves the worst description of material for road making. Independent of the facilities which their interstices afford for the lodgement of water, there is a constant tendency of their rising upwards. When pressed upon any point of their circumference they move, and the smaller particles falling in around them they become edged, and in time get to the surface. The best gravel for road making, therefore, is that which contains a proper quantity of clayey loam as a binding property, forming a close, compact, even surface.

A newly formed road will require occasional attention to prevent ruts until it becomes firm. When ruts are once formed, they define a tract which carriages follow; and are thus continually widened and increased. They become filled with water during rains, which not being able to escape softens the material and hastens its destruction by each succeeding carriage, involving a greater outlay in repairs than would have been required to prevent its occurrence, besides the inconvenience of travelling on a road in such a condition.

The same general principles are applicable in the formation of walks for foot passengers. The depth of material, however, need not in many soils exceed a few inches. A porous, gravelly, or sandy soil is in itself a good walk if properly shaped. Such walks admit of greater convexity than carriage roads, which is equivalent to a saving of material. A gravelled walk is as apparently a work of art as a building, its outline should therefore be accurately defined. It should appear brimfull of

gravel; there is nothing disfigures a walk or conveys so meagre an expression as deep raw edgings, looking as if they had been cut with a plough. Attention to this point would improve many places where the paths look more like water-courses than comfortable foot paths.

Allusion has already been made to the fact that gravel should possess a binding property to form a good walk. Much inconvenience arises from gravel of a clayey nature in wet weather, although it forms a hard and durable walk when it is dry. To remedy this a thin coating of sand should be thinly spread over it, which not only makes it smooth and agreeable to walk upon by the wearer of the thinnest shoe, but renders it passable immediately after the heaviest shower, and besides, gives a more agreeable effect, the neutral tint of the sand harmonizing better with the grass than the yellow and red gravel so commonly employed, which appears intrusive, and as GILPIN said of a red brick house, "sets a landscape on fire."

THE STRAWBERRY QUESTION.

BY WILLIAM STOMS, CINCINNATI, OHIO.

IT is estimated that, with the season just closed, there has been grown in this vicinity, and sold in the Cincinnati markets, some three thousand bushels of Strawberries. This is about one-third below the annual average, in consequence of a partial failure in the crop of *Washingtons*.* Of this variety, more is cultivated than any other, because of their early ripening and hardy culture.

They are also a more certain crop than any other variety, as a general thing—but just in the nick of time, a severe frost, and prevalence of cold winds, while the fruit was in bloom, cut them short for this season.

Among amateurs, this berry receives but little attention, on account of its pale appearance, and absence of flavor—though it is considered among field growers as a *money making* berry. It rarely ever freezes out in winter, or burns out in summer. The Early Scarlet is also extensively cultivated on account of its hardiness and prolific bearing.

I promised in my last to give you the crop of, and cash receipts for, Strawberries grown by JOHN C. YOUTCY, of Campbell county, Kentucky—eight miles from Cincinnati. I have selected Mr. YOUTCY—not because he was the largest grower—but because I could more readily obtain his statistics.

He has raised and sold about one-tenth of all the Strawberries vended in our markets the past season. His varieties, &c., being the three following: Two acres of *Washingtons* which produced sixty bushels, and sold for four hundred and twenty dollars. Five acres of "Hovey's Seedling," which produced one hundred and seventy-eight bushels, and sold for twelve hundred and sixty dollars. Three acres of "Hudson," which produced one hundred and two bushels, and sold for five hundred and thirty dollars. Gross receipts from ten acres, two thousand two hundred and ten dollars. The expense of picking, including the boarding of hands,

*Known also as the Iowa.—ED.

was two hundred and twenty-five dollars. Expense of marketing seventy-five dollars. The probable cost of cultivation per annum is fifteen dollars per acre. Mr. YOUTCY cultivates all his Strawberries on new, but very hilly ground. In each variety, he has the past season excelled, and defied competition. In "Hovey's Seedling," permit me to assure you without the fear of contradiction, that he never was beat in this country—twice taking the first premiums at our horticultural exhibitions, against amateurs, market gardeners, and every thing else.

We regret that Mr. BARRY did not find it convenient to spend one day while here, with the Kentucky growers of Strawberries. There are some fifty acres in cultivation in one settlement, within eight to ten miles from our city. More than half the Strawberries vended in our markets are grown on that side of the Ohio river. The receipts for sales by Mr. CULBERTSON, a neighbor of Mr. YOUTCY, was twenty-five hundred dollars.

I had intended saying something as to Mr. YOUTCY'S experience with impregnators for his "Hovey's Seedlings." He has tried several staminates, and thinks now that he has hit upon the right. But this is dangerous ground for me to travel—and as it is conceded on all hands that our friend Mr. LONGWORTH has the fixing of sexualities in all Strawberry matters, I must desist from further elaboration on this point.

By the way, I notice in the "Ohio Cultivator" of June 15th, that friend BATEHAM sets down the "McAvoy's Superior" as being too pale in color. This, of course, is news in this region—and we have no doubt MCAVOY would be willing to treat his friend BATEHAM to a bottle of "Native," if he will only make his berry two or three shades paler than it now is.

PLANTING TREES FOR WOOD.

BY A SHIP-CARPENTER.

THE article on this topic in the *Horticulturist* for July has left a very strong impression on the mind of the writer, and he would be glad to learn that the same effect has been produced on those best situated to benefit by the valuable suggestions thrown out.

The calculations with regard to profit are by no means extravagant. Though our railroads traverse in the first instance wooded districts, their first operation is so far to enhance the value of cord and other woods, and of the land for arable purposes, that the trees are immediately felled to supply the greedy locomotive, or to convert the land into arable acres, and long before twenty years elapse fuel has become extremely scarce; or perhaps the wood is of a worthless description, and fire is applied, as may be seen on so many of the new routes to the West. Forecast or anticipation of the wants of the next generation is forgotten, and whence our children are to draw their lumber no one can predict; good telegraph poles, and even the sleepers of the road when they require removal, will have to be sought at great expense.

Larch is undoubtedly a suitable tree for such planting as has been suggested. It occupies less space than many other trees, is conical, and would be less in the way; its wood is entirely suitable for the sills of the road, aud it is of rapid growth. I agree with the editor that stock in the tree company offers better inducements for investment than that of most of our railroads, turnpikes or canals. By the way, what a curious thing it was that just as lumber was becoming very scarce, we should all at once have gone to building plank roads.

One of the great expenses of lumber is its transportation. In the interior it is remarkably cheap; railroads and canals offer the easiest mode of transfer, except rivers, and the head waters of the latter are pretty well exhausted of their best timber. We must resort to railroad or canal transport for our future supplies, and how fortunate will that company be which has its millions of hard wooded trees to resort to in the year 1900, or even at an earlier date.

As a means of supplying fruit, the subject is worthy of deep consideration. Take the Maron Chesnut, with its large fruit for roasting, so much esteemed, and so very high priced. A railroad route planted with these trees, for a mere bagatelle, would yield thousands of bushels in a very short time. Eight trees on one small suburban lot yield the owner often one hundred dollars per annum. Peaches, Pears, Cherries, and even Grapes, might very profitably be cultivated on the borders of our thoroughfares. If the directors will not do it, they might offer to let the ground under certain limitations and restrictions.

It is asserted that twenty-two hundred full grown trees, or the matured crop of forty-four acres of woodland, are required to furnish timber for a single seventy-four gun ship. This is a great country, it is a true, but it is getting shaved very close of its beard!

[In confirmation of the remarks on the above subject, we cut the following from an intelligent Illinois journal:

"As to the growth of Wood, it is very generally estimated to equal the annual consumption. But it ought to do more, much more than this. True, there is as much wood in the State as is needed, but not where it is needed. Belts of timber skirt nearly every stream, but there are thousands of square miles of choice prairie at least five miles from the nearest grove or "opening." Every land-ower, every speculator, ought to realize the moral obligation resting on him to plant timber. If the owner of each prairie quarter-section distant more than one mile from the nearest timber were required by law to plant at least ten acres of timber thereon within a year, and keep the fire out of said timber by plowing a wide belt all around it, the total value of the lands of Illinois would be enhanced at least one-fourth within ten years. Let the seed sown be part Locust or some other quick-growing wood, the residue Hickory, Sugar Maple, White Pine, Chesnut, Cherry, Black Walnut, &c., and soon Illinois, from being the very worst, would soon become decidedly the best timbered State in the Union."]

THE GREENHOUSE.—RESULTS OF EXPERIENCE.

BY H. B.

AS many amateurs have a greenhouse which they conduct themselves, a few words of advice may not be thrown away. The writer often sees a greenhouse sadly neglected from the want of correct information on the part of the owner; the plants are overgrown and covered with mildew, untidiness reigns around, and the structure, which, properly managed, would be an ornament to the garden, is almost a blemish to it. At this season every preparation should be made for the months which must intervene before the house can be emptied. What has to be done in the way of cleaning and general arrangement should be done at once, and the following observations, if attended to, will help to secure for the amateur all the benefit the greenhouse is calculated to give.

If not done before, the house should receive a thorough cleaning, and for this purpose the plants must be turned out, or if the weather will not permit this, they may be crowded together at one end, while the other receives the requisite purification. The glass, paint, and floor should be scrupulously submitted to a woman competent to do the thing in a business-like way. Every corner should be scraped out, that all insects and their eggs may be destroyed. As pots acquire growths of fungous productions, an application of soap and water will be of service to them. This cleanliness will be found of great value, and will promote the well-being of the plants in a high degree during the winter months, when the dampness of the atmosphere is more to be dreaded than frost. Mildew, mouldiness, *et hoc genus omne*, delight in dirty places, to say nothing of the thousands of insects which the smallest greenhouse can harbor in its corners and crevices.

The next process is the arrangement of plants for the winter, a matter requiring a measure of judicious thoughtfulness. The plants of an amateur may be classed into two kinds, those which are required to grow, and those for which a state of rest is more desirable. The former must have the best of the light and warmth, while the latter may be placed in the situations having the least of these advantages. It is presumed that artificial heat is not to be applied, except for the purpose of excluding frost; for if the house is kept too warm, no plants can be put into shady places with impunity. The stock for bedding out next spring should be kept as dormant as possible, and in a house without a fire this may be done by putting the pots on the floor, and giving no more water than sufficient to keep the foliage from withering. Plants to bloom during the winter, or early in spring—in fact, all which are required to grow now—should be arranged as near the light as possible. In the arrangement of plants in a house, care must be taken not to allow the foliage to become crowded; and to prevent this productions of low stature should be placed between those which are taller. By this kind of sorting, the space will be economised, and a far larger

number of pots got in and kept healthy. It should have been stated above, that it is indispensable that the roof should be water-proof, for the drip will seriously incommode you, if it is allowed to come in.

Let it be seriously impressed upon the possessor of a greenhouse for general purposes to be as liberal as possible in the admission of air on every practicable occasion. No one thing is so inimical to the health of plants as the want of fresh air. A free movement among the leaves, occasioned by the wind, is always to be desired, and there are no days, except when frost exists, when this may not be gained. It is surprising what a dread exists of fresh air among a large class of persons. They exclude it from their bed-rooms, and on the same principle shut it out from their greenhouses, with the same result in both cases. To drive out damp, or to prevent its entrance, no plan is so effectual as that now recommended.

Ordinary frosts may be resisted without the application of fire-heat, if care is taken to cover up the house with some material which is a non-conductor of heat. If in any case a sharper frost than was anticipated should occur in the night, leave on your covering until the sun has risen some time, or until you have ascertained that any frozen foliage is thawed. It is astonishing how much a tender plant will stand of cold, if light, and especially solar rays, are excluded until the thawing is over. In all cases the object is not to give heat but to exclude frost, and to this end the skill and attention of the amateur should be directed.

In the present state of the garden in general, while the foliage remains unmoved, and flowers are still brilliant, every amateur should take a survey of his domain, whether extensive or limited, for purposes of future alteration and improvement. Time will be well employed in noting matters which admit of a better arrangement than they have yet received, and it is highly important that the various effects produced by the position and filling up of flower beds, and the allocation of trees and shrubs, should be marked. In relation, for instance, to close planting, this is the time to observe its injurious consequences, and to determine to correct them. In winter, when the branches are destitute of their umbrageous coverings, there appears to be space enough for each tree and shrub to revel in; but in the autumn the conviction made by a survey is very different. Some plants touch each other, others are becoming intertwined, others are fast hastening to incommode their neighbours. Now, although it would have been wiser to have planted at a proper distance at first, the quicker the evil is remedied the better it will be. Mark those trees which are thus threatened with shortness of house-room, and let them be moved with care, so that they may suffer as little as possible.

If the cropping of a kitchen garden is observed, and the arrangements which have existed during the year in the plantations of Gooseberries, Currants, Raspberries, and Strawberries, it will be found that the best vegetables and finest fruit have been secured where the most liberal space has been allowed for sun and air. A wet season teaches capital lessons on this subject, for it is then seen how shade and contracted quarters injure vegetation and deprive fruits of their proper flavour. One of the last lessons learned by the gardener is, that if we are generous to Nature, she will be generous to us, but that if we restrict her she is amply revenged. Make your

observations now, and this fact will be impressed upon your memory. Crops of Cabbages or Broccolies, rows of Peas and Beans, &c., which have been crowded together, are now the dens of mildew and insects, while those provided with plenty of room have been kept in health by sweet air and bright suns. Determine which rows of Raspberries shall be rooted up, which Strawberry plants will be better away, and, having formed the resolution, do not forget to execute it when the desolations of winter have contracted the productions, and seem to give them space enough.

The effects produced by the various colours of flowers in combination and in contrast, may now be advantageously recorded, either for imitation or alteration next year. For example, I have in my garden some six-year-old scarlet Geraniums, which I annually plant in various situations, generally surrounding them with flowers of a more shrubby growth, and of a contrasted colour. This year I planted round these tall stems some seedlings of a minor Convolvulus, of a much darker blue than the common variety, and as its growth has been very rampant, the plants have been twined with the branches of the Geraniums. The effect of the brilliant blues and deep scarlets, and the light and dark green of the foliage has been very striking, and I shall endeavour to adopt the same arrangement next year. So in reference to other things. Some combinations I have found to be any thing but graceful, while others are worthy of being perpetuated. These various results will fade from the memory unless now distinctly noticed, and the benefit of experience in this manner will be lost.

Nothing teaches like Nature: and the amateur may receive fine lessons on taste by watching and criticising her equisite painting. Observe the hedgerows at various seasons, and you will learn what different new arrangements your parterres admit of. Bend your attention to the lights and shades produced by the ever-varying combinations of the fields and the woods, and you may transfer some beauties to your shrubberies. The eye and the heart in this way will find plenty to do, and you will become not only an admirer but also a co-adjutator of Flora, the tasteful observer of whose footsteps will often be able to heighten the beauty of his mistress by a chaplet of his own creation.

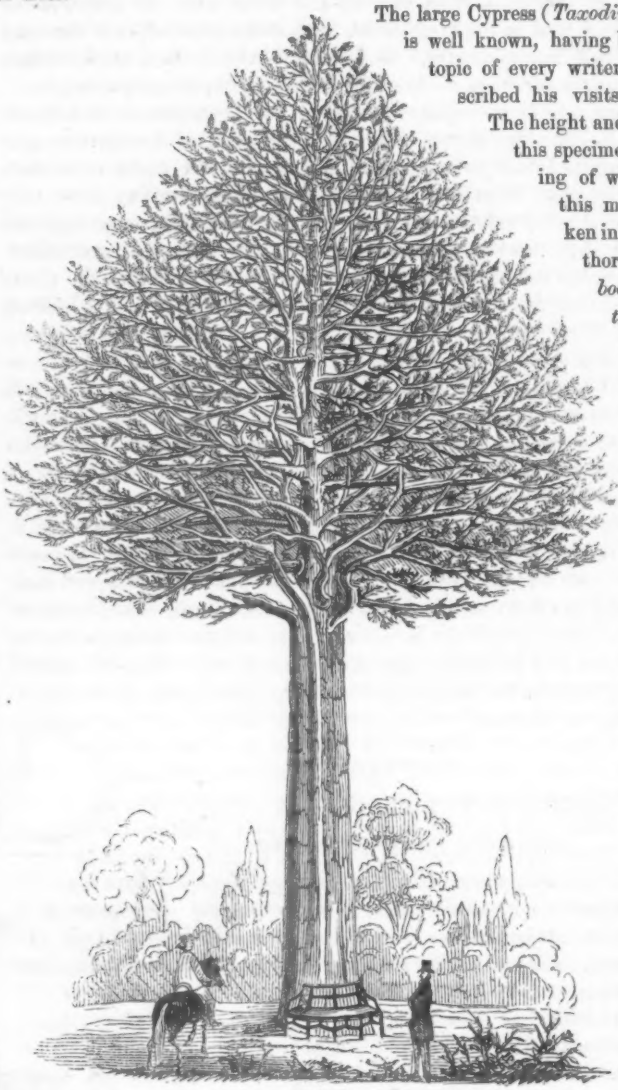
ARBORICULTURAL NOTES.—NO. II.

BARTRAM'S GARDEN, PHILADELPHIA.

It was the writer's intention to confine himself in these notices to those fine trees in his own immediate neighborhood, and suggest to other pens the pleasure they might confer on the readers of the *Horticulturist* by similar notes of their own localities; but being familiar with the far famed locality, Bartram's Garden, from whence the artist has taken his present illustration, it will not come amiss to give my subject a wider scope.

And first, omission must not be made to thank the present owner, Mr. Andrew M. Eastwick, for the great care with which every thing any way related to the great father of American Botany is preserved and cared for; from the old house he

lived in, and which with his own hands he built, to the stateliest tree or humble shrub which he planted. Much has fallen before the unrelenting scythe of time; but a great deal—a very great deal—still remains to reward a visit from all lovers of trees.



TAXODIUM DISTICHUM.

The large Cypress (*Taxodium distichum*) is well known, having been the chief topic of every writer who has described his visits to the place. The height and dimensions of this specimen, an engraving of which is given this month, were taken in 1853 by the author of the "*Handbook of Ornamental Trees*," from whose little work the height of all the trees noticed in this sketch is taken. The height there stated is one hundred and twenty-five feet, and its circumference twenty feet. It is a fine tree for cool moist soils.

Another specimen that always seemed very fine to the writer is a *Chinquapin* (*castanea pumila*) twenty-five feet

high, and thirty-five inches in circumference. This, however, is fast going into decay. Some specimens of the Mahaleb Cherry (*Cerasus Mahaleb*) are the finest probably in the country—perhaps anywhere; for they certainly do not grow as large in their own native German woods, where it forms the St. Lucy wood of the French cabinet makers, as it does here. One specimen is forty feet high, and three feet in circumference,—rather a strong stock, one would think, to produce the so-called "dwarf Cherries" of our nurseries.

Some of the finest Ailanthus trees (*Ailantus glandulosa*) are here. One measures sixty feet high by seven in circumference. The female tree is very ornamental in fruit, and quite free from the disagreeable odor of the male, and in situations where its liability to throw up suckers is not objectionable, is perhaps one of the most ornamental trees we have. A specimen of the Copper Beech (*Fagus sylvatica cuprea*) is a pretty picture, clothed with branches to the ground, a perfect pyramid, and fifty feet high by thirty-six inches in circumference. Though it is not so handsome a variety as the "blood-leaved," it is well worthy of general culture. Adjoining this is a fine specimen of the Yellow Wood (*Virgilia lutea*—or perhaps more properly *Cladrastis tinctoria*) with several stems, which together at the base measure four feet round, and is fifty feet high. It is too rare a tree for one of such beauty, both of foliage and flower; but the seeds are not easy of access to our nurserymen, which is a fair excuse for its scarcity in their collections. A "China tree" (*Kolreuteria paniculata*) is not near so fine as I have seen them elsewhere; but I can never look on its fine large panicles of golden yellow flowers, or the rich crimson and yellowed leaves in the fall, without a feeling of regret that a tree so accommodating to various soils and situations should be so seldom seen. A Sorrel tree (*Lyonia arborea*) is, I think, very remarkable for its size; it is sixty feet high, and four feet in circumference. A pretty tall "Shrub," and no disgrace to its specific name. A congener, growing along side of it—*Andromeda pulverulenta*, next to the Kalmia, I would place as the most ornamental Shrub we have, but which to our disgrace Europeans alone seem to know how to do it justice. In the line of the Magnolias, the *M. auriculata* stands chief, seventy feet high, and five and a half in circumference. There are also some fair sized large leaved specimens (*M. Macrophylla*), forming a very dense and most agreeable shade. The best Cucumber tree (*M. acuminata*) is eighty feet high, and seven feet in circumference. A specimen of *M. soulangeana*, a hybrid kind, has every year hundreds of expanded flowers. Another very rare tree is *Sophora Japonica*, which, though generally supposed to be rather tender, has managed to live here to such advantage as to reach the height of between forty and fifty feet, with a fine spreading head. A very pretty grafted specimen of *Æsculus rubicunda*, every year presents a strong claim to the honor of being the finest cultivated Horse Chestnut by the large clusters of brick-red flowers it unfolds. Amongst the Oaks there is a fine variety to interest. A *Quercus lyrata* is sixty-two feet high, and six feet in circumference. In very favorable seasons it ripens its seeds even so far north as this, though in "*Meehan's Handbook*," by a slight error not then known to the writer, it is said never to do so here. The Over-cup White Oak (*Quercus macrocarpa*) measures sixty-three feet high, and six feet in circum-

ference. This is the most interesting of the group for the beauty of its acorns; though in the splendor of its foliage, and picturesqueness of its appearance, it is inferior to the unfortunately less known species (*Quercus bicolor*), the mossy cup or swamp white Oak, the large leaves, and dense foliage of which have probably no superior in beauty. Some very fine specimens of the British Oak (*Quercus robur pedunculata*), and of the American White Oak (*Q. alba*), are not bad. The former is eighty feet high, and seven feet in circumference; the latter eighty-five feet high, and thirteen in circumference.

Amongst the trees little known, but very beautiful, *Styrax grandifolium* may be especially noted. The specimen here thrives in deep shade, is twenty-five feet high, and over one foot in circumference. In early summer it is a perfect nosegay of sweet scented white blossoms. Another Styrax (*S. lævigatum*) here, though a very pretty looking shrub, I do not ever remember seeing in flower. *Halesia diptera*, flowering nearly a month later than the *H. tetraptera*, and with magnificent clusters of large white flowers, is a very showy small tree; it does not grow as large as the common kind. *Cyrilla racemiflora* is another special favorite,—an Evergreen laden with thousands of racemes of countless white and waxy blossoms, perfectly hardy and very accommodating. What have cultivators been about to entirely overlook its merits? *Phyllyrea angustifolia*, a European Evergreen, seems well "at home" under the shade of the Pine trees.

The Hop Horn Beam or Iron-wood (*Ostrya Virginica*) may also be here included, for though somewhat better known, it is rarely seen in cultivation. A fine slender Birch, covered with white looking Hops, will give a very good idea of it. This specimen is over fifty feet high. The Franklin tree (*Gordonia pubescens*), with its large white flowers like single Camellias, thrives very well here in deep shade; as also does *Stuartia pentagyna*, a beautiful shrub of the same natural order. The odd looking Christ's Thorn (*Paliurus aculeatus*) has here obtained a height of thirty feet; its awful looking spines even more horrid than those of a *Gleditchia horrida*, yet when, in the fall, covered with large red berries, it is highly ornamental.

We might continue these notes of this highly interesting place, till the whole number was filled, but we must find space to notice the beautiful Evergreen, *Bignonia capreolata*, which, as a hardy vine of great beauty—in flower or out—as Mr. DOWNING and others, in the pages of the *Horticulturist*, have long ago taken the opportunity to notice. One excellent character in it is its doing so well in deep shade.

To a Pomologist there is not much here to interest. There is, however, the much celebrated fine old Petre Pear—the parent of all the Petres; and also the original "Chapman" Pear, which, though not of high rank with Pomologists, those who like a fair sized juicy Pear of the old crassanne flavor, know well how to appreciate.

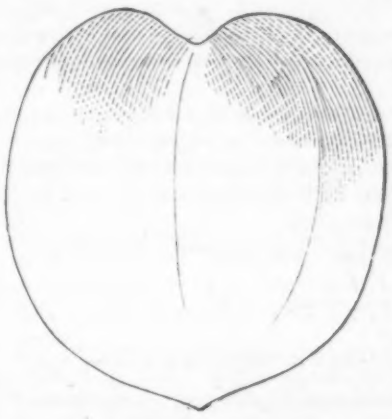
M

[The great Cypress at Bartram's has been our admiration since boyhood; it stood, when we first remember it, near a fine spring of water, but it seems to have appropriated the whole to itself, the spring having disappeared; its long spreading roots send up those curious large knobs which the Southern negroes appropriate for bee-

hives; altogether this specimen forms the noblest tree within our knowledge. Twenty feet in circumference is small, it is true, compared with the Wellingtonia Gigantea, with a *diameter* of twenty-nine feet two inches, but it affords the mind some little opportunity to judge what the latter must be. Bartram's Garden is the cradle of American Botany; the best book and the most readable of its kind is "Darlington's life and correspondence of Bartram and Marshall," which can be heartily recommended to every lover of unsophisticated nature. We know of no such instructive botanical biography.—ED.]

THE STANWICK NECTARINE.

THE sensation created in England and France by the introduction of the *Stanwick* Nectarine in 1846 has had few parallels, but it has subsided on discovering that the climate was not entirely favorable to its perfection. In our own country, however, sufficient time has not elapsed fully to test its capabilities; it is still hoped that it may succeed on the walls of open gardens. At its first appearance it was supposed it was "destined to throw out of cultivation most of the stone fruits so highly prized by Europeans; also, that the Peaches of Paris, as well as the Nectarines of the island of Jersey, were tasteless and worthless when placed by the side of the *Stanwick* Nectarine."



STANWICK NECTARINE.

We have received a single fine specimen this season from Mr. CALEB COPE, successfully fruited by his gardener, JEROME GRAFF, and present an outline of the fruit.

This Nectarine fruited for the first time in the United States at Mr. COPE'S a year ago. The fruit was exhibited at a stated meeting of the Pennsylvania Horticultural Society, but the committee on fruit failed to give a description, though the curiosity of our horticulturists was excited to know something respecting it. The only notice taken was the award of one dollar to Mr. COPE'S gardener. It seems to do well here, except its liability to crack—a feature from which it may be exempt when allowed to mature in a cold house: this will be soon tried, as two plants are now growing in Mr. C.'s cold vinery. The plant from which our figured specimen was plucked is small, growing in a ten inch pot. Last year it had five beautiful Nectarines upon it, some of them slightly cracked; the present season it produced but three, two of which decayed before maturity. The plant has labored

under great disadvantages, in being forced two successive seasons, and without being shifted. In the flavor of the fruit we think it far surpasses any previous variety known to our cultivators. It has nothing of the insipidity of the Nectarine, and less than usual of its peculiar odor; it may be pronounced a *smooth skinned Peach* of the most delicate character, exceedingly tender, rich, juicy and sugary, without the slightest trace of the flavor of prussic acid. When we speak of the odor of the common Nectarines, we do not do so disparagingly, for the smell and the beauty of the fruit have hitherto comprised its principal value. The plant is growing on a Peach stock, and the fruit may be said to equal in size any of the melting varieties. Mr. GRAFF deserves great credit for its introduction.

It may be as well to reproduce here some of the particulars respecting this novelty from the Journal of the London Horticultural Society. Fruit of this new and extraordinary production was received August 29th, 1846, from Lord PRUDHOE, in whose garden at Stanwick-park it had ripened. He obtained the variety from stones given him by the vice-consul at Aleppo, then residing near Suedia in Syria, whose favorable climate is peculiarly suitable for the cultivation of Asiatic or European fruits. The vice-consul, Mr. BARKER, brought to England Peaches and Nectarines with sweet kernels like a nut, probably never heard of till their existence was announced by him. The fruit of the Peach and Nectarine, partaking so much as it does of the qualities of the bitter Almond, must have been very deleterious in its unimproved state. It was considered unlikely that amelioration would be carried much farther. For at least a century little improvement has been effected, and in every variety hitherto the kernels have proved intensely bitter. But at last this is overcome; in the specimen above described, the deleterious quality considered inherent in the species has disappeared.

The tree on its own roots is a strong and robust grower, and continues to grow late in autumn, and has hitherto retained its leaves in England throughout the winter. Lord PRUDHOE'S gardener has no doubt that when worked on Apricot, Plum, or Almond stocks, it will prove quite hardy there, and bear well even in the north. The original price was fifty dollars a plant.

What say our hybridisers can be done to give it an American constitution?

CULTURE OF THE OLIVE IN AMERICA.

A recent number of the *Charleston Mercury* has the following correspondence and remarks in relation to this plant: "It has long been the opinion of many observing men that the Olive may be successfully raised here to as great perfection as in the south of Europe. A resident of Philadelphia, three years ago, imported a quantity from France for some plantations in Texas, but we have not since heard of their fate."

Plants of it are very common in the green-houses of Philadelphia, and if our Southern friends find it answer their purpose to grow them, our nurserymen would

soon get up a stock, as they grow very readily from layers, or by grafting on the common Privet (*Ligustrum vulgare*).

On the sea coasts of Carolina and Georgia, the American Olive (*Olea Americana*) grows naturally. It is found only in light rich soils, and it is quite possible that if it might not be improved so as to compete with the European, it may at least afford some hints to those who wish to try that kind.

Of the *Jujube* also, one species (*Ziziphus volubilis*) is a native of the Southern States, found, I believe, as far north as Virginia. P.

From the Charleston Mercury.

The communication of Mr. Chisolm, it is hoped, will attract general attention. He is one of the most careful and successful of experimenters in the Low Country of our State, and whatever he says may be relied on. The most interesting matter of his communication relates to the successful culture of the Olive, and in regard to this he affords us a gratifying correction. Some twelve years since we received from one of the islands of our coast, a branch of an olive tree, loaded with fruit, but wilted by a killing frost in the early part of November. We have often seen the tree since, and seen abundant evidence that it thrives well in our soil, but have never had a glimpse of the ripe fruit, or any report from those who have cultivated it. The impression had grown upon us that our severe autumn frosts were fatal to its perfect maturity. We are glad to be disabused of this impression; and venture to hope that the experience of Mr. Chisolm and others will lead to the general introduction of the Olive tree into the Low country of the State. It is a tree, which, like the Chinese Mulberry, rejoices in a light sandy soil. It would suit an extensive region of South Carolina just above tide water.

The fruit is extensively used in three ways. It is pickled, and thus forms the most agreeable relish in the world. It is dried, and in this state is a nutricious, wholesome and pleasant article of food. It is pressed, and the Sweet Oil of commerce is extracted. For the latter use Mr. Chisolm thinks there is not much chance of cultivating it profitably in this country. Undoubtedly he is right, if it be taken up merely as a garden or fancy culture. But whenever large fields are planted with the Olive, and all the appropriate means are used to economize the reduction of the fruit to oil, we feel sure that it may be a profitable culture for this purpose alone, where the climate is such as to insure the maturity of the fruit.

Mr. Chisolm's experience invites us to recall the attention of the public to the late importation of Olive plants from Spain, which are still in great part undisposed of. The most of these plants are in a healthy condition, and we hope the opportunity will not be lost to disseminate them widely.

BEAUFORT, June 11, 1855.

Messrs. Editors:—I perceive by a late number of your paper, that you are under the impression that the Olive will not ripen its fruit in our climate. I presume that you are informed of the state of things in Charleston; but I can assure you, from an experience of ten or more years, that in this neighborhood it ripens its fruit fully, and I have never known any to be at all affected by frost. I have some three hundred or more trees, most of which are in bearing, and some have been for several years. The fruit begins to ripen in September, and by the middle of November, little, if any, unripe fruit can be found. My trees are of two kinds, and were procured from the neighborhood of Florence, and thus far, bear fruit every year, and abundantly. Labor is too dear, and cotton too profitable, for oil making to pay, and until some great change takes place in the value

of labor, or our market crops, I do not think that sweet oil will be made to any extent in the Southern States.

I have had the Jujube in cultivation for twenty years, and it grows as readily as the Spanish paper mulberry, and in the same way. It suckers freely, and the suckers grow very readily, and I believe that this is the best way of propagating it. Its foliage is quite ornamental; its flowers small, but very numerous and fragrant; and its fruit very pleasant, having the merits of a nut without being one. Beyond a tree or two, I do not think that any one would care to cultivate it. The Capers plant has proved able to stand our climate for twenty years past, and has borne fruit even in a low clay soil on the seaboard, though its favorite situation is rocky hill sides. It is propagated principally by layers, but thus far I have not succeeded in getting any layers to take, though I have never used any of the means used by nurserymen for layering, which may be the cause of my failure.

Yours, respectfully, R. Chisolm.

VARIETIES.

Obituary.—Mr. James Wilson, of the firm of Wilson, Thorburn & Teiler, nurserymen, died in Albany, on the 29th of June, aged sixty years. Mr. Wilson came to this country from Scotland thirty years since, and by his honesty, industry and perseverance raised himself, from an humble beginning, to the possession of an ample fortune, and the good will of all his fellow citizens and acquaintances. Mr. W. was at one time gardener to the late H. B. Pierrepoint, of Brooklyn, and aftewards became connected in the nursery business with the late Judge Buel of Albany, to whom he succeeded in that line of life. He was a benevolent man and aided nobly the cause of education in his neighborhood.

Ohio State Fair.—Every arrangement seems to be completed for the Ohio State Fair, to be held at Columbus on the 18th, 19th, 20th and 21st of September next, and great enthusiasm exists upon the subject. The premiums are most liberal.

The Pittsburg Premiums announced by the Horticultural Society are liberal and extensive. They make a very large handbill.

Famine and Wives.—The grasshopper seems likely to destroy the entire crop of the Mormons. The time comes to the best of us when "the grasshopper is a burden;" but we apprehend that when no grain is to be had, repudiation will commence in earnest, and a dozen wives, in addition to the grasshopper, will be found a burden too heavy to bear. When there is nothing for the *mill-hopper*, the ladies will have to skip *harem-scareum*. Eve was declared to be taken from the *side* of Adam, but only one Eve; too many in a famine will create a *stitch*, which modern Adamites will be glad to drop. If they had a *Punch* in Utah, he would first express his astonishment that women would voluntarily make *Judy's* of themselves.

The Onion, according to Johnston's Chemistry of Common Life, contains from twenty-five to thirty per cent. of gluten, ranking in this respect with the nutritious Pea and the grain of the East. It is not merely as a relish, therefore, that the wayfaring Spaniard eats his Onion with

his humble crust of bread, as he sits by the refreshing spring. It is because experience has long proved that it helps to sustain his strength also, and adds (beyond what its bulk would suggest) to the amount of nourishment which his simple meal supplies.

Somebody advices, in a note to us, that the blossoms of the Ailanthus be clipped off every year before they begin to give their nauseous odor. If the gentleman would just trim a couple of dozen by way of pastime, perhaps he would change his mind as to the labor, to say nothing of very decided if not satisfactory effect of such cutting upon the trees. The place to cut is at the roots, Mr. Clinton-place; cut off the dog's tail about an inch back of the ears, if you would be *sure* to prevent him from running mad.—*N. Y. Paper.*

Prize Awarded.—The Society for encouraging National Industry in France, which had instituted a prize of 3,000 francs for the introduction of the most useful plants into the mother country or the colonies, has just decided that the above sum shall be this year divided equally between M. Diard, who has introduced a new kind of sugar cane into the island of Reunion, and M. Fery, who has established extensive rice plantations near La Teste, in the landes of Bordeaux.

Useful Investigations.—The Commissioner of Patents has sent Mr. Glover to Florida, where he is to pass some months in studying the insects pernicious or beneficial to rice, tobacco, sugar cane, orange, the cotton plant and other staple vegetables. Mr. Glover's investigations into the habits of the destructive insects in the Middle States will be published in the next agricultural report.

Cotton Seed Oil.—Mr. Shephard, of Galveston, Texas, it is announced, is perfecting a valuable invention by which he can produce oil by compressure from cotton seed. One hundred pounds of seed yield from twelve to fifteen pounds of oil, which, when properly clarified, is equal to sweet oil for machinery, and is superior to ordinary lamp oil, while it can be sold at one half or one third the cost of either. Another source of income is the cake formed of the seed when the oil is pressed out. It is said to be valuable for feeding hogs and other farm stock. Cotton seed has heretofore been regarded as entirely useless.

Wine Making is getting to be a profitable business in Lower California, where the vineyards are extensive. One proprietor last year had twenty-five thousand bottles of wine from his vineyard, and this year he expects a greater yield.

The above we clip from a newspaper. No doubt but the climate is entirely suitable for the manufacture of wine in California as well as here. In a little trip through Chester County in this State lately, we observed a large number of vines in growth in large fields on the European plan, no doubt intended to supply this market, or for wine making. Will some of our correspondents inform us?

Camellias in Cornwall, Eng.—In the gardens of J. S. Bedford, Esq., of Pendrea, near Penzance, I noticed a splendid Camellia just coming into full bloom, and bearing upwards of 2000 buds and flowers, all fine and perfect. The size of the plant is 7 ft. high, 11 ft. in diameter, and 33 ft. in circumference. The gardener informed me that it has been in the open air throughout the past very severe winter; but a slight covering is now thrown over it, to protect it from the cold east wind and hoar frost. When planted in 1848, it was only a foot high.—(*Gard. Chron.*, p. 317.)

Wire Worm.—This can be entirely extirpated, by using hog manure. So says a correspondent of the *Rural New-Yorker.*

EDITOR'S TABLE.

ANSWERS TO CORRESPONDENTS.—(G. F. S., Battle Creek.) By the portion of a leaf and the description sent, your Strawberry would appear to belong to the "Boston Pine," but for your assertion that the fruit is "much more delicious than Burr's Pine," which in our opinion the Bostón Pine never is. Send us a few berries at the proper season, and you shall have a more decided answer.

(T. M.) If you want a rapid, even rampant grower, plant in tolerably rich soil the Wistaria Sinensis, and give it time to get a good root. It exhibits best its rare beauty when trained up the trunk of a tree, or better still, a strong pole or upright wire trellice, so that many of its smaller branches may hang loosely in "graceful negligence." Exposed to the light on a trellice the flowers are of a brighter color than when in the shade. If the young shoots are pinched back in the spring, this plant will flower again in the fall. Framed on the walls of a house to extend round several sides, a succession of flowers, commencing from the warmest aspect, may be had for weeks. The honey from the flowers is poisonous to bees and *bumbles*.

(J. H. B.) The vine you find so much to resemble the Grape in leaf and habit is the *Ampelopsis cordifolia;* it attains a great size, running over the highest trees in the manner of the wild Grape. It is not considered either useful or particularly ornamental, but it is curious for its remarkable "imitation," if we dare to use the word, of a productive vine.

(P. T.) GOLD FISH.—It is true that the gold fish has become naturalised in the Schuylkill above Philadelphia, or rather perhaps we should say in the Fairmount dam—a distance of miles. They were introduced by the breaking of a fish pond many years ago. The boys offer them for sale in winter of a large size, and fit for stocking your lake, at from ten to fifty cents each. There are hundreds of natural lakes and artificial dams where they would multiply enormously. Last winter, while constructing some dams on a small stream of spring water which empties into the Schuylkill, we requested the Irish laborers to purchase any gold fish that might be offered, and place them in the dams. A few days only elapsed before the works were completed, and on taking a view of them our intelligent superintendent related the following adventure. The cold had been intense, and had frozen the river to an unusual depth; the gold fishes, big and little, repaired to the mouth of our little stream in great numbers, probably for the greater warmth of the water; the freshet having meantime subsided, the man went to the river to see its effects, when lo! the ice had fallen and had caught in a trap at the creek's mouth, *ten dozen* fine large "goldies," which were taken by the hand, filling a large washing tub, and thus our new water was stocked at once. Why should not the smaller lakes of Western New York be stocked with these beautiful pets?

(L. D. DURGIN, Washington Territory.) We have sent you catalogues of seeds and fruits; scions may be sent by careful packing, if you indicate the route by which they are to travel.

A Kentucky Subscriber will find three several notices of the Hydraulic Ram in vol. 7 of the *Horticulturist*, and drawings in vol. 2. Where there is sufficient power an overshot, double-action water wheel, has the preference over a ram.

(M. M.) It will be an improvement to your process in resisting the Apple borer, if you cover the cloth which you wrap round the boll of the tree, on one side, with a mixture of one ounce of grease to two pounds of rosin. The cloth is placed with the rosin-side outward, and overlapping; the adhesive qualities will keep it in its place, and assist much in repelling the pest of our fruit trees. The process will be less troublesome than looking up the grown enemy with knife and crooked wire.

(H. C. M., Zanesville, Ohio.) We have received your interesting communication, which has many truths in it to be hereafter elaborated.

(M. J., Ohio.) Received and contents noted.

Pleasures of Planting.—Where shall we find so pleasing an appreciation of the pleasures that attest the lover of a garden, as in the following extract of a letter from the venerable Dr. Fothergill:

"Planting and gardening supply a fund of entertainment, the most lasting and reasonable of any occupation in this life, pleasures not to be purchased. The trees which we ourselves have planted, the fruits we have raised, the plants we have cultivated, seem to be like our children, a kind of new creation. Their shade, their taste, their fragrance, and their beauties, affect us with a richer repast than any other. What a pleasing scene lies open to a young man of fortune devoted to such amusements! Each succeeding year produces new shades, other fruits, fresh beauties, and brings besides most certain profit. To behold the rising groves, barrenness made fertile, our country improved, ourselves made useful and happy, and posterity enriched! I have seldom known a man possessed of a taste for such pleasures, who was not at the same time temperate and virtuous."

The Floral Fete at the London Crystal Palace in June last was probably the greatest heretofore seen in Europe. Five thousand dollars were distributed in prizes. Of course all the skilled gardeners of the kingdom rallied round the head of their order, Sir Joseph Paxton, each vying to excel. In the fruit department, owing to a cold spring, there was a disappointment. A great portion of the transept was devoted to Rhododendrons, which it must have been well worth a voyage to see; those who have seen even a common exhibition of these plants at Chiswick will understand us.

Fruits in Wisconsin.—Mr. A. G. Hauford wrote us in June from Waukesha, Wisconsin, but a gloomy report of the prospects of fruit in that region. The spring opened unusually early and expectations were raised for a beautiful crop, but late frosts destroyed much in the blossom; this was succeeded by severe frosts that cut off the greater part of what was left. Mr. H. reports very favorably of the Early Purple Guigne Cherry, as an early and constant bearer.

Lucy Fitch's Seedling Strawberry is declared by a competent witness who writes from South Bend, Indiana, to be a four fold better bearer than Hovey's Seeding, Early Scarlet, Burr's New Pine, or any other sort he has tried. If it suit your soil and climate, well and good.

The Seventeen Year Locusts appeared in vast numbers in parts of Ohio in June last doing great damage.

HAMAMELIS VIRGINICA has been met with on the Neshamony Creek, near Doylestown Pa. twenty-five feet in height and with a trunk a few inches from three feet in circumference. It was growing in the bed of a creek, amongst rocks and large loose stones. Have any of our botanists seen it of this size?

———.

THE CHARTER OAK GRAPE.—Mr. J. D. Ingersoll writes us that this grape has been offered in his vicinity and sucessfully sold at a high price by "humbuging pretenders as a *delicious muscat*; say two to five dollars a root according to age and *quality!*" This grape is utterly valueless, and the sale of it around the country among ill informed people is rank imposture. Every man should set his face against it.

THE WONDERS OF THE SHORE was the title of a most attractive article on Natural History in a late *North British Review*. It has been reprinted and the authorship is avowed by that accomplished scholar the Rev. Charles Kingsley.

GRATTAN AND TREES.—Some of Grattan's sayings are characteristic of the deep poetry of his mind, so brilliantly described by Sydney Smith. He loved trees, and used to say, "Never cut down a tree for fashion sake. The tree has its roots in the earth, which fashion has not." A favourite old tree stood near the house at Timebinch. A friend of Grattan's thinking it obstructed the view, recommended him to cut it down. "Why so?" said Grattan. "Because it stands in the way of the house." Grattan. "You mistake, it is the house that stands in the way of it, and if either must come down, let it be the house."

"I thank God," wrote Sydney Smith to Lady Mary Bennet, "who has made me poor, that he has made me merry. I think it is a better gift than much wheat and bean land with a doleful heart."—*Life of Sydney Smith.*

THE HEAT.—Nothing amuses me more than to observe the utter want of perception of a joke in some minds. Mrs. Jackson called the other day, and spoke of the oppressive heat of last week. "Heat, ma'am," I said, "it was so dreadful here that I found there was nothing left for it *but to take off my flesh and sit in my bones.*" "Take off your flesh and sit in your bones, sir! Oh, Mr. Smith! how could you do that?" she exclaimed with the utmost gravity. "Nothing more easy, ma'am; come and see next time." But she ordered her carriage, and evidently thought it a very unorthodox proceeding.—*Ibid.*

A DOG'S BREAKFAST.—Miss ———, too, the other day, walking round the grounds, exclaimed, "O, why do you chain up that Newfoundland dog, Mr. Smith?" "Because he has a passion for breakfasting on parish boys." "Parish boys!" she exclaimed, "does he really eat boys, Mr. Smith?" "Yes, he devours them buttons and all." Her face of horror made me die of laughing.—*Ibid.*

VIRGINIA.—THE SEASON.—Our correspondence this month extends over a large region of country, and much of it is occupied by accounts of the effects of last summer's drought and the extreme variations of the past winter's climate. From Loudon County, Va., Yardley Taylor writes.

"As the last year has been remarkable with us, some statement of the effects may not be unacceptable; and first the drought, it is believed, was never surpassed. The depth of rain fallen for a year past certainly does not exceed two feet, more probably only twenty inches. But little snow occurred during the winter, and but one rain for twelve months that wet ordi-

nary ground plough deep. Pastures were constantly dried up, so that farmers had to commence feeding stock a month earlier than usual, with our corn not one-third of a full crop. Though the wheat and hay crop was tolerably good, provender run out before the pastures were fit to turn in upon, and serious consequences for the coming year are apprehended. The grass in the early part of the season was very impoverishing, and in some places there is not half a crop. Virginia and Maryland usually send large quantities of corn to market, but the past winter and spring there have been tens of thousands of bushels brought up from tide water, so that the high prices of beef have had a cause.

The winter's effects on fruit trees have been remarkable. At mid-winter, two weeks of moderate weather swelled the buds and started the sap, and the severe season that ensued produced the results we now see in our trees; some branches of Apple, Peach and Cherry trees failed to put out leaves. The twigs seemed plump and green, but no circulation of sap. Some Peaches opened but few blossoms, while the leaf buds opened freely, except on the outer branches; the Grosse Mignone suffered most. The Cherry trees almost entirely failed to set their fruit; what could be the cause?

A singular circumstance is observable on some fruit trees this year: a tendency to produce double fruit in both Plums and Peaches; one of my Peach trees has produced several instances of treble fruit from a single blossom, and on several small branches every bloom has set double fruit. Why is this so? has it been that the amount of organisable matter usually laid up in the fall in the body of the tree, had to expand itself in the spring in less compass in consequence of the short growth of last year, and thus giving more support to the fruit buds. The same effect has been observed in other States.—Y. T."

It is observable that when Pear and other trees are forced to a second bloom the same year, those branches are unfruitful the next; the forcing the trees received in winter produced the same effect. The setting of double fruit our correspondent has satisfactorily accounted for. The present favorable season will probably put all to rights.—Ed.

Illinois.—A correspondent, Mr. M. Doyle, at the Sangammon Nurseries, Springfield, Illinois, says:

"The locust borers have made their appearance to some extent in our locust groves, some of which are very extensive in this part of the country; in fact, we have scarcely a plant or vegetable but has a pest peculiar to itself. We are in need of all the information we can possibly get on the subject."

The West.—A correspondent says:

"The *Horticulturist* is a great favorite of mine; in travelling through some sections you can easily tell its subscribers by the appearance of their farms; you can see the beautiful young orchards springing up in fine order, while their neighbors, who could as well afford it, have not a tree or shrub on their places, although they have been what is called improving for the last fifteen or twenty years, yet their homesteads look as though they had squatted down last spring. They now begin to inquire of their neighbors how they derived such information; they, of course, refer them to the *Horticulturist*.

The crops look well, yet we are not without trouble, as we are subject to the ravages of insects to a frightful degree. About the middle of June, the woods in Illinois swarmed with locusts; they have punctured the small limbs of fruit and forest trees, and deposited their eggs; they are now beginning to disappear. There is also the insect, described by Professor Harris, page 43 of his report. They could be seen depositing their eggs in crevices in the bark of fruit and forest trees, all of which suffer severely from these borers while in the grub state, particularly the Apple, Peach, Mountain Ash, Horse Chestnut, Elms and Oaks; of the latter they seem only to attack stunted trees."

Washington Territory, away off on the Pacific, is knocking to be admitted a member of our horticultural parish. If there were any evidence wanting to prove the progress we are making, the following letter might be adduced from

GRAND MOUND, W. T., March 20th, 1855.

I am happy to acknowledge the receipt of your Horticulturist for the past year with the exception of the November No, our mail of that date being lost between this place and California on the steamer *Southerner*. I being the only one who takes your Journal I have loaned my numbers to distribute for examination, and it has been attended with good success considering the newness of our country and by whom it is peopled. I think ere the year is out we can give you at least twenty names from our vicinity; once get an interest taken in Horticulture and the Horticulturist will take like *Hot Cakes*. I will assist Rev. Mr. WHITWORTH all I can in increasing its circulation.

We have many native fruits in this country which I think would be quite an acquisition to you in the eastern States for grafting or budding upon. I have seen Gooseberries in the woods here at least twenty-five feet high; this is a small, black berry when ripe; we have another variety which grows very large, the stalk resembling the currant in its growth; this is quite a large berry of an oblong shape measuring $\frac{3}{4}$ of an inch in diameter in a wild state; color dark red when ripe and said to be very rich and pleasant, I have not yet seen any of them, but I have secured some of the bushes from the woods and I will be able this year to fruit them, and if they prove as good as represented it will be quite an acquisition even to us. We have berries in profusion of all kinds I believe, except the high bushed Black Berry, Salmon, Service, Salal, Thimble Cran. Blue, Huckle, Straw. Rasp. and running Blackberries wild in the woods. We also have wild Rose Bushes which are very large and high. I have them on my claim some ten or twelve feet high and one-and-half inches in diameter. I am cultivating the most of the wild berries which I think will greatly improve them. I find it is quite difficult to get any new varieties from the States. I am very desirous to see this country abound with every thing adapted to the climate. Many things do much better than in the Eastern States; vegetables grow in profusion. And I think we shall be able to grow the staple varieties of fruit. L. D. DURGIN.

MORE EVIDENCE IN FAVOR OF GAS LIME:—*Mr. Editor*:—My limited experience, in the use of refuse lime from gas works, as a manure, is much more in accordance with Mr. MAXWELL'S views than yours, and for the following reasons.

In the spring of 1853, a lot in this vicinity was filled up some two feet or more, with earth from a hill side, and was covered with grass sods, without any soil or manure of any kind, being put beneath them—the grass was watered occasionally, during the dry hot season, but presented a very sickly appearance.

In the autumn of that year, it was covered with refuse lime from the gas works, and during last summer, it produced a most luxuriant growth of green grass, [Poa pratensis] and now, without any other application, is as pretty a sod, as any one need wish to see.

In consequence of this experiment, I covered my own grounds, last fall with it, and notwithstanding the cold backward season, I had on the 14th inst., a stout swarth taken from them, the grass being of a much deeper, and more healthy green than heretofore. I have also tried it in compost, with sufficient encouragement to repeat the trial, but it is more difficult, to form a correct judgment of its effect when combined with other manures, than when it is applied *per se*.

I have seen no analysis of the refuse lime, produced by the gas works at this place, but that it does contain, as suggested by the Agriculturist, a large per centage of caustic lime, (hydrate) I think may be shown, by stating the process adopted at the works. I am told the custom is, to remove the lime, many hours before it is saturated, with the impurities it is intended to arrest. Is not the effect of this, to leave a large per centage not saturated, and consequently caustic.

Again, according to Prof. Johnson's analysis, as quoted by Mr. Maxwell, *more* than one-half is carbonate of lime, *about* one fifth is sulphate of lime, and three per cent. alumina and oxide of iron—here then we have *about* seventy-five per cent. of vegetable stimulants. I think it probable, that much of the caustic or kiln lime, used as a manure by our farmers, does not contain much more of the essential stimulants, than this sample.

The transition limestone, that abounds in this vicinity, contains, in some localities, thirty-six per cent. of impurities, chiefly magnesia, which is obnoxious to vegetation. Now as I presume they use stone lime in the gas works at Toronto, may not the samples, used by the intelligent gentleman of whom you speak, have been of this character, and not rendered worthless comparatively, by passing through the gas works.

The sample analysed by Prof. Johnson, as quoted by you, must necessarily have contained a large excess of water, as it is used by the gas manufacturers, in the form of hydrate, otherwise it would not have been one-half water.

The mode of managing the lime here, I believe, is, to put it under cover after it has been used in the purification, and allow any excess of water it may contain to pass off, and so great is the demand for it, that the orders from the farmers are sometimes many months in advance of the supply, and so fully are they convinced of its value, that they pay six and a fourth cents per bushel, and haul it five or six miles, when they can purchase the fresh or kiln lime for ten or twelve cents.

As an evidence, that they are not behind their neighbours in the proper management of their farms, their beef is much sought after, and commands the highest price in the metropolis of New York, as their butter does in the cities of Baltimore and Washington, this I have heard them attribute to the superior pasture afforded by the green grass, the growth of which appears to be much promoted by this "vile refuse which should be buried many fathoms deep, in some barren region." Let us not, Mr. Editor, condemn it *nolens volens* as Dr. Ure appears to have done, but give it a fair and impartial trial, and if it should then be found to be worthless, reject it, and "strike it from the list that promises well." Yours repectfully M.
West Chester, Pa.

We are much obliged to M. and shall be to all who favor us in this way with their experience. We desire nothing so much as light, and above all the light of experience. We shall have still more information on this subject by and by.

The Carob Tree, or St. John's Bread.—Among the recent importations from Alicant, Spain, were some seeds of the Carob tree, the pods of which, when ripe, contain a few drops of a substance resembling honey, and on that account supposed to be the sort of food used by St. John in the wilderness. It blooms twice a year, and attains a large size; a single tree, sometimes, yielding a ton of pods. It affords most nutritive food to cattle, horses and mules, who thrive wonderfully upon it, and it will, doubtless, succeed well in the Southern, and perhaps in the Middle States—*Newspaper Paragraph.*

The Carob tree, (*Ceratonia Siliqua*) would doubtless be a valuable addition to our Southern States, coming as it does from the same latitude as the "Pride of India" (*Melia Azedarack*) and other things which are found to do well in the South. In the middle States it would probably rank with the *julibrissin* in hardiness, no further. The fruit is about the length of our Honey Locust, about half as wide, but considerably thicker; and, instead of a "few drops resembling honey," is filled with a sweet pulpy mass, at least such were those eaten by the writer.

The cattle "*who*" hrive well on it, doubtless find nothing deleterious in the seeds, in which case it could not fail to be nutritious. I have occasionally met with specimens in Phila. and New York collections, *not* "recently imported." P.

Whitlavia grandiflora, has flowered in this vicinity, and proves a very pretty addition to our list of hardy annuals. The habit and appearance of the plant is similar to the *Eutoca*; but the

flower is of a deeper blue, tubular, having the appearance of a minature *Gloxinea*. It will become popular. P.

Onotheœa Macrocarpa, is a a very fine dwarf perennial "Evening primrose." The yellow flowers are three inches in diameter, and, being borne on long footstalks, are elevated above the recumbent branches. It should be classed with the *Dicentra spectabilis* in a collection of fine hardy plants, though this only gives us a spring welcome; while the "primrose" smiles on our evening walks, and morning rambles the whole summer long. P.

Weigela amabilis, turns out very like a rogue. He has not at any rate answered the expectation I formed of him. To give it what is due, it seems *botanically* distinct from *W. rosea*,—the leaves are wedge shaped at the base and somewhat petiolate, and the flowers are on long slender footstalks; but in color and form as near alike to the common one, as two marrowfat peas are to each other. P.

The *Compass Plant*.—Botanical travellers tell us, that in the western States there is a plant the leaves of which always present their several opposite edges north and south to such a constant degree, that the Indians can travel by it with certainty. This has been received as a "travellers tale." In the writer's garden, about a dozen seedlings are growing strongly; every leaf on them exhibits the propenisity noticed. As the leaves of the Gum trees (*Eucalyptus*) and some other trees of *Australia*, "choose" to grow vertically, there is no reason why one of our own plants (*Silphium* Sp.) should not enjoy some other vagary. P.

The Tamarind.—We hope the following from an exchange paper may be true:

The Tamarind has grown in Virginia from seeds, and is highly spoken of as promising to be a valuable acquisition to our fruit trees, especially on the prairie lands of the West. Its growth is rapid, its appearance very ornamental, and it is perfectly free from blight and from the depredations of insects. Last season the trees in Virginia produced fruit as good as the imported.

New American Cherries.—In the Revue Horticole for May 16, we find noticed under the head of "New American Cherries" by M. Naudin, the seedings of Mr. Walsh of Charlestown, near Boston which were briefly discussed at the last meeting of the Pomological Society.

M. Naudin describes them as being remarkable for their size, agreeable flavor, and particularly for their *lateness*, all three ripening in *October* and at intervals of one week. M. Naudin has either committed a great error, or has been incorrectly informed. We believe Mr. Walsh's seedling which is described as being similar to the "Black Bigarreau of Savoy," ripens about the same season as that variety, the last of July.

We copy the discussion on this variety, from the proceedings of the American Pomological Society pages 196 and 197. B.

Mr. Cabot of Massachusetts. We have a cherry seedling in this neighborhood raised by George Walsh of Charlestown. He states that there are three different seedlings ripening at intervals, of about one week from each other; but they are so much alike that it is difficult to tell them apart, except by the time of ripening. It is a very valuable large sized black cherry. I propose that we call it Walsh's Seedling.

Mr. Walker of Massachusetts. I have been acquainted with this cherry some fourteen years. When it was first exhibited at the tables of the Massachusetts Horticultural Society, there was some doubt as to its being a seedling, from the fact that a Mr. Brown of Danvers had presented a cherry very much like it, which he called the Black Bigarreau of Savoy. I happened to be upon a committee which was sent out to examine the tree. We did not make a very thorough examination, but satisfied ourselves that the trees were not budded. We afterwards came to the conclusion that it was a seedling of Mr. Walsh, as some years elapsed and no such cherry was brought in by any other person. I think Mr. Walsh called it No. I. It is

well known as being a large black cherry, equal in size to the Black Tartarian; a very firm fleshed and excellent cherry; I should say of the best quality.

Mr. PRINCE of Long Island. Some years ago Mr. Walsh sent me grafts of these cherries, I inserted them, and called them Walsh No. 1 and No. 2; but was afterwards satisfied that they were the same as the Black Bigarreau of Savoy. The cherry is large, round, and jet black.

Mr. HOVEY of Massachusetts. I introduced the Black Bigarreau of Savoy to the public here; and think it an entirely different cherry from Mr. Walsh's, which was put into the catalogue as the New Black Bigarreau, and is known to Massachusetts Society as such.

Mr. WALKER of Massachusetts. Does the gentleman consider Mr. Walsh's cherry a seedling?

Mr. HOVEY of Massachussetts. I cannot say.

Mr. CABOT of Massachusetts. Mr. Walsh presented two varieties of cherry here, which he stated to be seedlings, and I do not now see that the gentleman denies them to be so.

Mr. WALKER of Massachusetts. If Mr. Walsh's cherry is not a seedling, why have we not, in fifteen or twenty years, found it imported from Europe? When a gentleman presents a fruit as a seedling, and that length of time is given for contradicting him, the chances are that he will be contradicted. But there is nothing against; the claim of Mr. Walsh here, except the statement of Mr. Prince, which can undoubtedly be explained. I think Mr. Walsh, who raised the seedling, is entitled to give it a name.

Mr. LINES of Connecticut. I move that it be placed on the list of those varieties which *promise well*, under the name of Walsh's Seedling.

The motion of Mr. Lines prevailed.

THE NECESSITY OF DROUGHT, AND ITS BENEFITS.—The State Agricultural Chemist of Maryland, Mr. Higgins, publishes a paper, showing the necessity of droughts to replenish the soil with mineral substances, carried off to the sea by the rains and also taken up by the crops, and not returned by manure. These two causes, always in operation, would, in time, render the earth a barren waste, in which no verdure would quicken, and no solitary plant take root, if there was not a natural counteraction by drought, which operates to supply this waste in the following manner. During dry weather, a continual evaporation of water takes place from the surface of the earth, which is not supplied by any from the clouds. The evaporation from the surface creates a vacuum, so far as water is concerned, which is at once filled by the water rising up from the subsoil of the land; the water from the subsoil is replaced from the next strata below, and in this manner the circulation of water in the earth is the reverse to that which takes place in wet weather. With this water also ascend the minerals held in solution, the prosphates and sulphates of lime, carbonate and silicate of potash and soda, which are deposited in the surface soil as the water evaporates, and thus restores the losses sustained as above stated. The author of this theory appears to have taken considerable pains to verify the fact by a number of interesting experiments. The subject is worthy the attention of men of leisure and of education, who pursue the rational system of blending chemistry with agricultural science.

The above notice by the Phila. *Public Ledger* of Mr. Higgin's experiments, calls our attention to a well known fact, though in a somewhat new light. Practical men are well aware that a subsoiled piece of ground will hold a larger body of water in suspension than it would in its natural state, and that this moisture rises to the surface in dry weather through its tendency to endeavour to equalize its distribution through all media containing it; precisely as a dry sponge "sucks" up water from a shallow vessel. That it should take up mineral salts at the same time is so very probable "on the face of it," that it is surprising not to have occurred to our scientific agriculturists before. It will give a new turn of thought to our subsoilers.

A Good Beginning.—Trees on the Illinois Railroad.—Dr. Egan, of Chicago, Illinois, has made a contract with the Illinois Central Railroad, to plant three rows of Locust trees on each side of the road for the distance of one hundred and twenty miles south of Chicago. The rows are to be set five feet apart, and the trees about three feet from each other.

Books on our Table.

The Agriculture of Massachusetts as shown in returns of the Agricultural Societies 1854: Edited by Charles L. Flint Secretary of Board of Agriculture.

We are indebted to the Hon. B. V. French of Braintree for a copy of this vol. We have had little leisure to examine its contents but in a hurried glance we see many items that merit a notice in the Horticulturist such are reports upon Orchards, Hedges &c. which we shall refer to hereafter. This handsome volume is illustrated with cuts of the great Barn of David Leavitt Esq., at great Barrington, and that of B. V. French Esq., at Braintree. The last is described as "an almost faultless model,"—cost above $6,000—besides drawing of animals &c.

A Practical Treatise on the Culture and Treatment of the Grape Vine. By J. Fiske Allen. Sixth edition, enlarged and improved. New York, C. M. Saxton & Co.

A Treatise on the Theory and Practice of Landscape Gardening. By A. J. Downing. Fifth edition. New York, C. M. Saxton & Co. 1855.

The Mineral and Thermal Springs of the United States and Canada. By John Bell, M. D. Philadelphia, Parry & McMillan. 1855.

American Flower Garden Directory. By Robert Buist. Sixth edition. New York, C. M. Saxton & Co. 1855.

The Practical Fruit, Flower and Vegetable Gardener's Companion. By Patrick Neill. Edited by G. Emerson, M. D. New York, C. M. Saxton & Co. 1855.

Botany of the Southern States. By Prof. John Darby. New York, A. S. Barnes & Co. 1855.

The World a Workshop; or, the Physical Relationship of Man to the Earth. By Thomas Ewbank. New York. 1855.

Horticultural Societies.

Errors of the Press must be forgiven in the hurry of new beginners, and the absence of the editor. We doubt not some few of the last pages of the July number were Greek instead of Latin to some of our readers; errors of this kind are not indispensable, and it is hoped may not occur again. Leaving an unpleasant subject, let us make up for errors of omission. The proceedings of various Societies were received too late for notice, and others were crowded out by attempting a full report of the Pennsylvania Society; the Horticulturist was a month in arrears with this Society, but being now all square will hereafter occupy less space with a local affair.

Pennsylvania Hoticultural Society's Meeting.—*July monthly Meeting.—Reported expressly for the Horticulturist.*—A very fine monthly meeting for the season of the year, and very gratifying to the cause of horticultural progress.

The most interesting feature was in the fruit department, and principal amongst these, a collection of grape vines grown in pots. Those who have never seen grapes grown in this way can form no idea of its many advantages. On the twenty plants exhibited in pots ranging from

ten to fourteen inches in diameter, there were one hundred bunches, and the whole probably would produce a weight of seventy or eighty lbs. A collection of Pine Apples grown in pots was scarcely less interesting,—the fruits being considerably larger than the the half ripened cholera breeders of the stores. It is very remarkable that more attention is not given in our country to raising such fruits. The flavor of a store bought pine bears no comparison to that of fruit raised artificially. A fine dish of the Cherry Currant places that variety amongst these fruits in the same position Hovey's Seedling occupies amongst strawberries; though there were some remarkably fine Red Dutch present, the Cherry was double the size of them, both in berry and bunch. It is rather "tart" in flavor. The Beurre Giffard Pear feasted the eyes of Pomologists, and some of their tastes. In size and shape it resembles fine Seckel, and will perhaps prove for some time our best early Pear. The Gooseberries were principally of the light class. Blacksmith, Green Rib, and Yellow Rib being the largest. The cut grapes though fine, presented nothing of unusual interest, except perhaps being better colored than we have often had them.

The increasing taste for the cultivation of orchideous plants, gives us more summer blooming plants than we once had. Saccolabium Guttatum, one of the prettiest and most easily grown, was flowering amongst blocks of wood in a basket. A Cattleya crispa, with one very large and handsome flower; Dendrobium Chrysanthem, with several of its pretty orange and crimson flowers; Cymbidium Aloifolium, a kind for potculture, with one long pendulous spike of crimson and white flowers; Acropera Loddigessii, with its curious curled flowers and pepper and honey odor; and Phajus Maculata, not so pretty as some others of the genus;—were amongst the best.

There was little new in the plant line. Some seedling gloxinias attracted much attention, through their size chiefly; one of them like the old G. digitatiflora, had the merit of novelty in the ordinary shape. The much neglected Hollyhock had some very beautiful representatives, named and much admired. Of the many Petunias exhibited, there was nothing new in color or form.

Besides the usual fine display of vegetables, there were some good specimens of Fairbeards Champion of England Pea, perhaps the best summer pea we have.

Pennsylvania Horticultural Society.—The stated meeting this month was held in Concert Hall, July 17.—The President in the chair.

The Committee on Plants and flowers—awarded the following Premiums—*Petunias* for the best display to J. J. Habermehl gardener to John Lambert; for the second best to John Gray. *Collection of twelve Plants*—for the best to Robert Buist: for the second best to Thomas Robertson gardener to B. A. Fahnestock. *Collection of six Plants*—for the best to Mark Hill gardener to M. W. Baldwin. *Specimen Plant*—for the best, to John Pollock gardener to James Dundas: for the second best, to Robert Buist for *Clerodendron Kæmpherii*. *Basket of cut flowers*—for the best, to Jerome Graff gardener to C. Cope: for the second best, to J. J. Habermehl gardener to John Lambert: of indigenous flowers—for the best, to Thomas Meehan: *Bouquets* pair, for the best, to J. J. Habermehl gardener to J. Lambert: for the second best, to Jerome Graff. And premiums of one dollar each, to John Pollock, gardener to James Dundas, and Jerome Graff gardener to C. Cope, for new plants. Special premium of two dollars to Wm. Hamill gardener to C. Henry Fisher for a show of cut Seedling Gloxinias. The Committee notice some choice and new varieties of Hollyhocks by J. L. Darlington & Co. West Chester.

By the Committee on Fruits—*Grapes*:—for the best three bunches of a black variety, to Mark Hill gardener to M. W. Baldwin for purple damask, for the second best to Wm. Grassie gardener to C. P. Fox for Black Hamburg. *Plums* for the best twelve specimens to Alexander Parker. *Figs* for the best twelve to Jerome Graff gardener to C. Cope. *Pears* for the best Collection to John McLaughlin gardener to I. B. Baxter. *Gooseberries* for the best to the same: for the second best to A. L. Felton. *Raspberries* for the best to the same. *Special*

Premiums, one of ten dollars, to Wm. Thompson gardener to John Tucker for the most splendid collection of Pine Apples in pots ever shown at our meetings. Three dollars to C. Sutherland gardener to John Anspach Jr. for two Pine Apples in pots. And ten dollars for an unusually beautiful collection of twenty pots of Grapes to Wm. Bright gardener to Joseph Lovering.

The Committee notice with pleasure fine specimens of Cherry Currant from C. Cope's grounds and the Boston Blackberry by Dr. Brinckle.

By the Committee on vegetables. *Tomatoes* for the best to A. L. Felten: for the second best to Herman Herlin gardener to Mr. Stoever. *Display* by a market gardener for the best, to A. L. Felton. The Committee called the attention of the Society to a specimen a New Pea called "Champion of England," and new English Blood-red Lettuce shown by James O'Neill gardener to J. E. Mitchell.

The Treasurer submitted his semi-annual statement of accounts.

Members Elected, John S. Heyl, Tho. Hildeburn, Tho. Shriver, James D. Whetham, John O. Pierce and Richard M. Marshall.

OBJECTS EXHIBITED.—*Plants* by Robert Buist—specimen plant, *Clerodendron Kaempherii;* collection of twelve—*Coleus Blumei, Clerodendron speciosissimum, Clethra arborea, Fuchsia Ariel, Gardenia Fortunii, Stephanotis floribunda, Ixora crocata, Veronica Lindleyana, Vinca rosea, V. occulata, V. alba*, and *Tremandra verticillata.*

By Thomas Robertson, gardener to B. A. Fahnestock—*Allamanda cathartica, Medinella uraphylla, Cyrtolepis longiflora, Crassula Beauty of Sharon, Gloxinia imperialis, G. cerina, Fuchsia Psyche, F. Sontag, Russelia juncea, Clerodendron Bethuniana, C. fallax odorata*, and *Achimenes Leipmannia.*

By Mark Hill, gardener to M. W. Baldwin—*Dipladenia uraphylla, Agapanthus sp., Cattleia crispa, Acropera Loddigiesii, Conoclinum ianthemum, Coleus Blumei*, and *Phaius maculata*, first time shown.

By John Pollock, gardener to James Dundas—a collection of twelve and a specimen plant; also a new orchid.

By J. J. Habermehl, gardener to John Lambert—a fine collection of Seedling Petunias, and a collection of six plants; also a display of cut Hollyhocks.

By John Gray—a fine display of sixteen seedling Petunias.

By Jerome Graff, gardener to C. Cope—new *Cymbidium aloifolium*, cut flowers of *Bignonia picta, Acacia julibrisin*, and *Glycine rosea.*

By J. L. Darlington & Co., West Chester, Pa.—a fine display of cut double flowering Hollyhocks, very choice.

By William Sinton, gardener to Dr. Rush—cut flowers of *Quisqualis Indica, Cereus*, and *Gardenia Fortunii.*

By Wm. Hamill, gardener to C. Henry Fisher—cut flowers of seedling Gloxinias, fine varieties.

Baskets and Bouquets—By J. J. Habermehl, gardener to John Lambert—a basket of cut flowers and pair of bouquets. By Jerome Graff, gardener to C. Cope—one basket and a pair of bouquets. By James Kent, gardener to J. F. Knorr—a pair of bouquets, not in competition. By Thomas Meehan—a basket of indigenous flowers.

Fruit—By Wm. Bright, gardener to Joseph Lovering—twenty pots of grape vines in full bearing, of many varieties, an exceedingly beautiful display. By William Thompson, gardener to John Tucker—six pots of pine apple plants, remarkably fine; the kinds were four Queen, one Sugar-loaf Enville, and one smooth Cayenne. By Mark Hill, gardener to M. W. Baldwin —three bunches of purple damask Grapes of large size. By William Grassie, gardener to C. P. Fox—three bunches Black Hamburg and two White Chasselas Grapes. By Jerome Graff, gardener to C. Cope—a dozen Brunswick Figs, a large Peach, and a dish of Cherry Currants. By Isaac B. Baxter—Gooseberries, Currants and Pears. By A. L. Felton—Raspberries,

black and red Currants. By J. F. Knorr—Gooseberries. By Thomas Meehan—Currants. By Alex. Parker—Plums, a red seedling.

Vegetables—By A. L. Felton—a very fine display. By Herman Herlin, gardener to Mr. Stoever—fine Tomatoes. By James O'Neill—specimen of a new Pea, "England's Champion." and *new* blood-red Lettuce. By Robert Buist—a tile for pot and greenhouse flues of his own manufacture.

The New York Horticultural Society held a very successful meeting in June, at which the poet, W. C. Bryant, was to have made an address, but was prevented by indisposition. In his letter of apology, he said many happy things; among others he remarked that

"The fruit of the American Blackberry is naturally of a finer flavor than the European, and greatly varies in quantity even in the fields. We may yet have as many varieties of this fruit as of the Raspberry. No attempt, I believe, has been made to improve the fruit of the American Plum, whether the Chickasaw, the red or the peach Plum, while the art of the gardener has been exhausted in obtaining from the Plum of the Old World varieties most remarkably different in size and flavor, from the little mirabelle, of the size of a bullet, to the magnum bonum, vieing in dimensions with the Peach. If the custard Apple of the West had been a native of Europe, can we suppose it would not have been brought into the gardens centuries ago, cultivated with care, rendered prolific, improved in size and flavor, and made a common table fruit in its season?

One of the most splendid of garden flowers is the pansy. Its parent is the little three-colored violet of Europe, pretty, but too small to be conspicuous. By crossing it with other species of the violet, and pampering the hybrid plant, a dazzling combination of glowing colors has been produced; the stalks have become tall and the petals broad. We have among the flowers of our own fields a little white violet of intense fragrance. By the same process of hybridization, it is probable that its size might be enlarged and its fragrance retained, and a new ornament be added to our gardens."

The Rev. Dr. Osgood was good enough to take Mr. Bryant's place. He said:

"He (the speaker) remembered once to have read in the Persian poet Hafiz the story "that the poet once went into a garden, and saw what he thought a clod there, but the clod was very fragrant. Said the poet, 'What is this? are you musk, or are you amber, that you are so fragrant?' Oh no, poet, I am nothing but earth, but the roses have dwelt near me, and their sweetness has penetrated all my being.' [Applause.] So then he asked to be listened to, although he might be the clod among flowers. Who, however, could be so adequate to speak on the subject of flowers as he who had been appointed to address them to-night; and whose poetry exhibited such a genuine appreciation of nature in his frequent allusions to flowers? Old cent-per-cent. in Wall-street himself could hardly fail to be softened by such an exhibition."

The exhibition of fruits and flowers must have been a most creditable one. The best collection of hot-house Grapes, raised by A. S. De Graw, received a premium of $5, and our old and valued correspondent William Chorlton took premiums for Muscat of Alexandria, Grizzly and White Frontignac, Black Hamburg, White Tokay, Rose Chasselas, Chasselas, Fontainbleu, &c. Strawberries and Cherries were in great perfection.

At the Brooklyn Exhibition, Mr. Chorlton exhibited Muscat of Alexandria, weighing two pounds two ounces, Grizzly Frontignac one pound one ounce, Black Hamburg one pound nine ounces, White Tokay one pound six ounces, and Cannon Hall Muscat three pounds one ounce!

We rejoice to find these Societies in a prosperous way, and wish them every success.

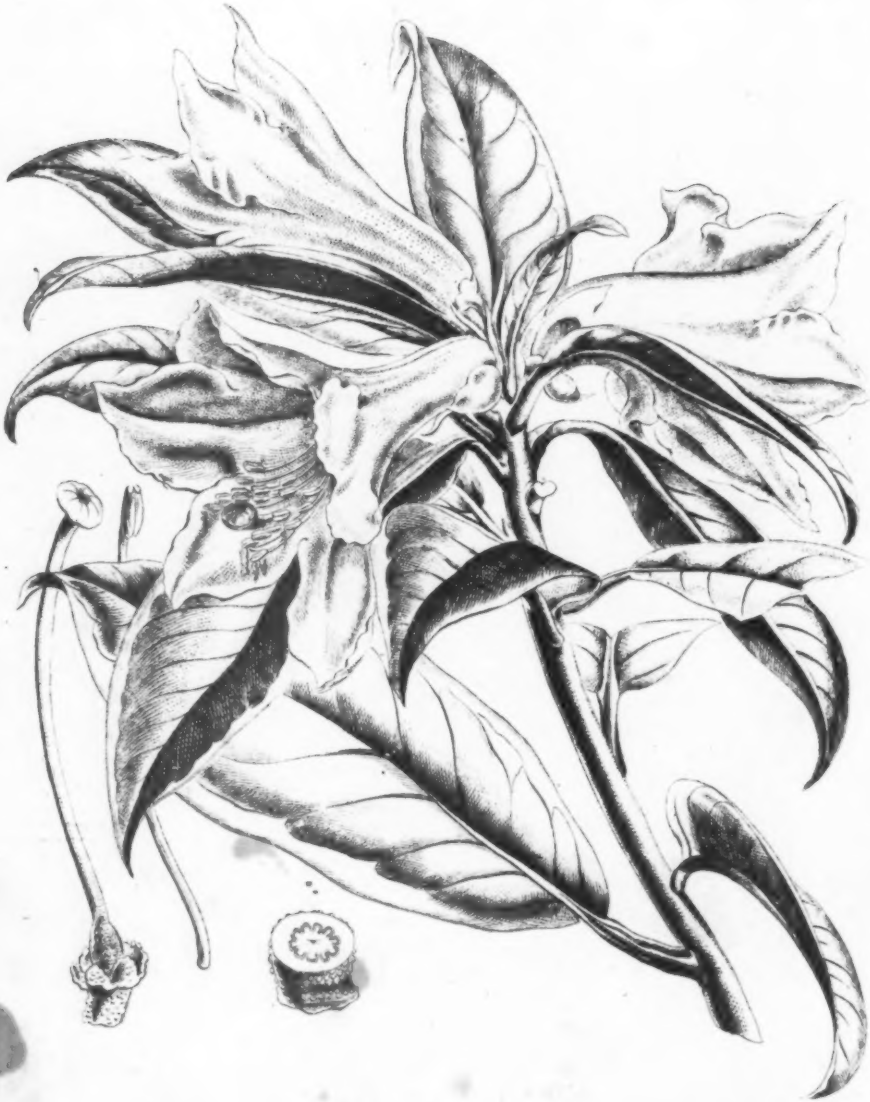
There is in the vicinity of New York much to encourage the lover of fine fruits, but some good cultivators whom we could name, do not appear in the reports, not yet being aware of the importance of competition as an encouragement and example to others.

At the Adrian (Michigan) Society, June 15, there was a brisk competition in Strawberries—Ross' Phœnix, McAvoy's Superior and Extra Red, Longworth's Prolific, Monroe Scarlet, Burr's New Pine, Black Prince, Hovey's Seedling, Prince of Orleans, Scotch Runner, Pine Apple, Early Orange, Crimson Cone, and Boston Pine. Hovey's Seedling, as has been the case almost everywhere, better than usual, but Burr's New Pine, very large for that variety, bore the palm from all for its high flavor. In fact, the show of this delicious fruit was the first the Society has ever made, and indicates increased attention to its cultivation. We cannot but say to the members of this Society—we wish we had been there!

Pittsburg, by the hands of its President, Robert McKnight, Esq., has forwarded a glowing account of its June meeting, with the awards. Mr. McKnight says "the good cause is making great progress in this transmontane region. We had a fine display of flowers and early fruits; for three days there was spread before the eyes of an admiring public a spectacle of rare flowers, choice fruits and vegetables, which satisfied every one that in the production of the kindly fruits of the earth, our own county has advanced *pari-passu* with other garden spots in our land. In the floral department the great attraction was the Night-Blooming Cereus from the conservatory of C. F. Spang, Esq. Mr. S. also furnished a fine display of foreign Grapes, large, beautiful and well ripened. Next, the Strawberries attracted the most attention, and I can say without presumption, Allegheny county, Pa., can challenge the world on the Strawberry question. Most of the berries measured over four inches in circumference, very many over five, many over six, and some seven inches. Perhaps the greatest favorite was McAvoy's Superior, being large, sweet and productive. It is objected to it as a market berry, that it is soft, and becomes crushed in transportation; for the same reason it is not a desirable berry for preserving: for this purpose Hovey's and Buist's have been the favorites. Burr's New Pine is coming into favor; Myatt's British Queen promises to be one of, if not, *the* finest of all our berries. The collection of Cherries was very attractive. Mr. Howett's eleven varieties of Cucumbers astonished the uniniated by their size and appearance, as well they might, the smallest being eleven inches long, and weighing one pound; the largest eighteen inches and weight two pounds seven ounces. We hope to have another exhibition in September next, when we should be glad to see our distant horticultural friends, whether as competitors or spectators."

This is in the true spirit, evincing that Pittsburg is "going ahead" on the right foundation.

Fruit Growers' Society of Western New York.—This interesting and important Society organised by appointing its various committees in June last. We hope the country members are now mindful of their duties. We have entered upon the season of fruits, when every day will bring to notice some fact worthy of being recorded. We shall be pleased to receive all their reports. Why cannot we have a Fruit Growers' Society in every State? Pennsylvania should be up and doing.



MAJOR MADDEN'S RHODODENDRON

UNIV. OF MICH.

Progress in Horticulture.---Is there Any?

IT is not an uncommon thing to hear people say after attending a horticultural exhibition, and luxuriating their eyes upon the display of exquisite fruits, "Oh yes! it is all very well for a few rich people and amateurs, who can afford to keep expensive places and gardeners, but why is it we never see these things in market?" The question would appear to be a reasonable one; will the questioners be contented at present with a reasonable answer?

The progress of all great improvements is slow; it has taken some ten years to introduce successfully that obviously economical instrument, the mowing machine. The captains of the Thames and other English steamboats keep a boy always on duty to hollow "stop her," "go ahead," &c., and they contend that a bell "would not answer;" so that we see even where it is of the strongest pecuniary interest, slowness marks the progress of a good thing. In the case of luxuries this onward movement is necessarily more tardy.

The improvement in fruits, however, it can be seen, is progressing with great rapidity; "the first day" in the creation of new races, and the taste to appreciate better supplies is just passing over our country, or perhaps we might say, is past. Its evening shadows have been marked in our principal cities by a few good fruits, such as very superior Pears being seen for sale, especially in Boston, perhaps at a high price, but still they were there; improved Apples almost everywhere; and the opening of a second day is about to commence. Very superior Strawberries are noticed by our correspondents from all parts of the Union, and what are they but the results of Hovey's, and Burr's, and McAvoy's talent and industry? Does any one suppose for a moment, that the introduction of fine fruits of all kinds is to be limited to the exhibition tables of societies; or that when a sensible man has eaten of the new Pears, such as the Bartlet, the Duchesse D'Angouleme, or the Howell, that he will plant the Catherine, or the poor old varieties? In the meantime, you and I, gentle reader, who may have, more providently than our neighbors, got a little stock of trees just coming into bearing, admire them too much, and take too much pleasure in giving a little basket of the produce to our friends;—in short, we *yet* have too few to be able to part with them; but we can recollect with satisfaction that this year, and for several past seasons, inquisitive neighbors, who were going on in the old routine, spied over the fence our superior show of Governor Wood and La Reine Hortense Cherries, and were humble enough to ask for grafts, which are now growing and will soon bear fruit for the market. Master Slowgoer stole an "Evening Party" Apple last fall, and his father was so pleased with its saleable

look, that he sent Joe for cuttings to graft on his old stocks. We feel sure the "Evening Party" will ere many years be in the Philadelphia market.

Has our questioner this year seen the new Currants, hanging "thicker" than ropes of onions, and twice the size of the old sorts—they are in the market; and so are better Raspberries—Dr. Brincklé's "Orange" has been extensively cultivated, as well as many other fruits for which we are indebted to his science; Blackberries are coming there too very soon, along with Pears that will gratify your taste as much as the exhibition tables delighted your eyes. Col. Wilder is preparing a feast for you, but you must have a little patience, and let those who have done this great work partake themselves, with their friends, of the first fruits of their labor. How long was your father alive before he saw, much less tasted, a Black Hamburgh Grape? The great conservatories of his time were perfectly content if they ripened a washing tub full of Lemons, or a few miserable Oranges in a year. Astonishment was at its height in Philadelphia, when it was whispered that Mr. Pratt's gardener picked two washing tubs full of Lemons, to make that atrocious mixture called lemonade, for a party. A similar space occupied by those Lemon trees is now made to produce five hundred pounds and more of the finest descriptions of luscious Grapes for the benefit of the world, and at no greater cost. Every one who has attended an exhibition may be comforted with the assurance, that in all these matters the day is about to dawn when fine fruits will be accessible to the many. It takes no more space to grow a good Cherry tree than a bad one, but a countryman is not likely to cut down his old Blackheart, which has regularly yielded him a few dollars, and plenty for his family, till the new varieties have come to maturity; thus the old Cherry will continue in the market for some time. Perhaps, too, the new will be so much esteemed at home by the youngsters about, that some years must elapse after bearing commences before the Louise Bonne de Jersey Pear travels to the Market street stalls. But take courage from facts already developed, and hope for better things.

Gratitude is eminently due to those enthusiasts who are working in private, like "the Happy Pomologist" of our July number, to improve the races of fruits. It is a work of both time and labor to fertilize the flower, plant the seed, and await the result, but this is the process by which what has already been done has been accomplished. The next task is the *acclimating* the new kinds by scientific reproduction, and giving to our fruits American constitutions; the foreign Grapes are now undergoing experiments to fit them to our climate, and we entertain no doubt of a successful result. It is the aim of the intelligent workers in this field to make good fruits as common as inferior sorts. That they will succeed everywhere, and in every garden, in the life time of this and the next generation, is not to be expected. But that wonders have been accomplished, and are in the course of accomplishment, in fruits, flowers and vegetables, no one who remembers our markets thirty years ago can for a moment doubt.

It is one of the missions of this particular period, to discover what vegetable productions are adapted to the various climates of the Union; when this has been even partially successful, every portion of our country will yield its fruits in its season,

and the luxuries of the garden, now confined to the industrious and discriminating few, will penetrate to every community. Our sun is better adapted to the ripening of fruit than that of any large portion of Europe; with the same skill in cultivation we ought therefore to have better articles; we have them already, and the means for their vast increase are now maturing. In many sections the advance is extremely rapid; nothing can stop it. We are

> "A people marching with a giant's stride,
> To giant empire—in a region, born
> Of grandeur worthy of the free and brave,
> Whose lowliest peasant holds in equal scorn,
> The throned despot and his groveling slave."

This journal, commenced so lately as July, 1846, has chronicled the formation, if we mistake not, of all or nearly all the Horticultural Societies west of the mountains; now they are very numerous, and each is exerting an influence which is incalculable. In a philosophical point of view they serve to attach our restless population to home. "In horticulture lies the most powerful *philtre* that civilized man has yet found to attach him to one spot of earth. It transforms what was only a tame meadow and a bleak aspect into an Eden of interest and delights. It makes all the difference between 'Araby the blest' and a pine-barren. It gives a bit of soil too insignificant to find a place in the geography of the earth's surface, such an importance in the eyes of its possessor, that he finds it more attractive than countless acres of unknown and unexplored 'territory.' Whoever lives to see the next cycle of our race, will see the great vallies of the west the gardens of the world, and we watch with interest the first development, in the midst of the busy fermentation of its active masses, of that beautiful and quiet spirit, of the joint culture of the earth and the heart that is destined to give a tone to the future character of its untold millions." It is not a little remarkable, that just in proportion to the intelligence and settled character of a population, is the amount of interest there manifested in horticultural pursuits.

There is one matter connected with this subject respecting which we desire to say a few words. One reason why the varieties of the best and most tempting fruits are not seen in the markets, may result from the circumstance that the more independent and successful cultivators of them possess no suitable mode of making sales. It would be easy to point out several private gardens where more of some kinds of fruit are produced than the family consumes, or cares to give away. It may be Grapes, or Cherries, or Pears, that are in superabundance, but these parties have neither time nor inclination to seek a market, and their fruits are suffered to decay.

In every large community there is a cry of want of occupation by numbers who will not help themselves; it would not be difficult to show that full remunerative occupation could be found for many hands, if they would ascertain in the early part of the season where a superfluity of fine fruits could be purchased in the walks of private life, and at the proper time go and take them to houses, stores, or stands, where they could be seen and purchased. The wealthiest men in Europe regularly dispose of their superfluities, whether Pine Apples, Grapes, or other desirable fruits;

this is not done here to any extent, because of the trouble of seeking a market, whereas the market should seek them. Intelligent men and women may find profitable employment in this business around every principal city and village; they will have to do so, not only for purposes of their own but to be useful; the bee visits every flower, picking up a little here and a little there to add to his store; let human industry imitate the bee, and carry its collected store where it will be appreciated. Our word for it, there is much to be had in this way, and there is a sure and profitable market somewhere for it all.

MAJOR MADDEN'S RHODODENDRON.

EVERY one has either heard or read of Dr. Hooker's discoveries of Rhododendrons, in the Himalayas. So very beautiful are they, that the Doctor's journey would have been amply repaid had he found no other novelties. The desire to own these amongst our enthusiastic amateurs is so strong, that in many cases no sum would be considered too great for the favor of being allowed to possess the coveted treasure. Many of the species already exist in our collections, and we have no doubt from their rare beauty, they will in a few years be as common as the *R. Arboreum*. The greatest misfortune is, that they will probably not prove hardy with us; though it seems rather playful in the country which has already given us a hardy Deodar, Morinda, and others, to keep back from us one hardy Rhododendron. As soon as they become common enough to risk, we trust some of our cultivators will see to this matter. In the meantime, we are sure our readers will thank us for placing before them an opportunity to judge for themselves, of the value of these plants. We may, however, remark that the illustration given, will go very little towards giving an idea of the other kinds; as they are unusually varied in the form and color of their flowers, as well as in their foliage, and general appearance. We append Sir W. Hooker's remarks on the present subject:—

"Next to *R. Dalhousiæ*, this is perhaps the noblest of the Sikkim Rhododendrons which rewarded Dr. Hooker's researches in Northern India. Its flowers are nearly as large as in that species; fragrant, very much in general form and size resembling the white Day Lily (*Lilium Candidum*), but the Corolla is delicately tinged with rose. Fine as is the original figure of the author above quoted, it is quite equalled by our flowering specimens at Kew, which were in perfection in May and June of 1854, in a cool and shaded greenhouse. The large delicate flowers contrast well with the ample dark-green foliage, which is rusty beneath, and has deep red petioles. It is a rare species in its native mountains, only found in the inner ranges of Sikkim Himalaya, in thickets by the Lachen and Lachoong rivers, at Choongtam, at an elevation of six thousand feet above the level of the sea. We cannot venture to consider it a hardy plant. The species, Dr. Hooker says, is named in compliment to Major Madden, of the Bengal Civil Service,—a good and accomplished botanist, to whose learned memoirs on the plants of the temperate

and tropical zones of north-west Himalaya, the reader may be referred for an excellent account of the vegetation of those regions. The same gentleman's paper on the Coniferæ of the north of India may be quoted as a model of its kind."

ROSES.

BY C. G. WILKINSON, WESTERN ROSE NURSERY, EALING, ENGLAND.

For the last season or two there has been no paucity of novelties among Roses, many of which may fairly claim, not only distinctness of color, but decided improvement in form.

Of those which have been introduced, and naturalized sufficiently to enable them to be spoken of with something like confidence, as to their various habits, &c., those here particularized may safely be added to collections without fear of disappointment.

Starting with the gems of the season (1853-4), "Prince Leon" and "Paul Dupuy" fairly claim that title, the first a clear cherry crimson, not very double, but with petals of a substance which give its autumnal bloom quite a non-fading character, retaining its form and colour four days in perfection, beside which, it is a model of the cup shape, with a robust habit; the other, a rich shaded crimson, with a full centre, its guard-petals giving it the cup-shape also, but shallower; they are both sweetly, though differently scented.

Of clear pink varieties there are several good ones. "Baron de Heckheren" and "Louis Peronny" are our choice; both are nicely formed, the habit of the latter is however the stoutest. "Baron de Kermont" is also a good variety, in the same style, but rather vase than cup-shaped. Of "Rose colours," deep, bright, rich, &c., &c., we had received a host, the cream of them, however, may be considered to be included in the following:—"Joseph Descaine," "James Veitch," "Comte de Bourmont," "Inermis," "Dr. Julliard," and "Eugene Sue,"—all being of the old-fashioned colour, with nicely formed flowers,—the last is a fine Rose, but rather a "hard opener." "Duchesse d'Orleans" must not be forgotten in the Rose colours, being of a shade tinged with lilac, and is a fine, bold, and perfectly formed flower.

The various shades of carmine are so generally admired, that good varieties of that colour are sure to be acceptable. "Alexandrine Bachmetiff" and "Souvenir de Levison Gower" are both nicely formed and richly coloured. "General Castellaine" is, however, rather darker, and of model form, but not of over robust habit, and "Charles Boissiere," of a reddish tinge, is large, and very double, and an excellent pot Rose.

In Crimsons we have certainly a glorious flower in "Le General Jacqueminot," a rich velvetty petal, not quite so bright as "Geant des Batailles," nor quite so double, but larger, with very much better form. "Souvenir de Reine des Belges" is a nice flower, in the way of "Prince Albert" H. P., but brighter, and somewhat like "Rivers." "L'Infant du Mont Carmel," a light crimson, is desirable, where large robust growing varieties are essential.

Of *really* dark Hybrid Perpetuals there has been long a want, and in "Triomphe de Paris" we have a variety many shades darker than any of its predecessors, its colour being as near an approach to the crimson Boursault as possible, it has also the shallow cup form to perfection.

The new white Damask Perpetual "Celina Dubos," with very pale blush centre, though believed to be a sport from "Rose du Roi," is very constant, and is the nearest approach to pure white amongst the Perpetuals, the raising a Hybrid Perpetual of that colour (?) having yet to be accomplished. The two brightest H. P.'s that may be depended on are "Mrs. Rivers," a beautifully shaped and scented Rose, —a counterpart in colour and shape to Alba "Le Seduisant;" the other, "Rosine Margottin," is also well formed, but the petals are not so deep as the former, and may be described as "Duchesse de Montpensier" much improved.

The new white Damask Perpetual, although supposed to be a sport from "Rose du Roi," has proved quite constant, and is a very great acquisition.

To the Bourbons we have several additions, the best of which is undoubtedly "Vorace," a rich beautifully formed crimson, shaded with purple. "Prince Albert" (*Paul's*), a bright deep cherry colour, is good; as is "Souvenir de l'Arquebuse," and the peculiar crimson, shaded with purple, of "Reveil" is novel, besides which, "Louis Odier," a bright rose colour, of strong habit and good shape, is a useful variety.

In Tea Roses the greatest recent novelty is "Gloire de Dijon," and certainly the colour, an ochreous yellow, the size, as large as "Jaune Desprez," and the Tea scent, make it a great acquisition. "Madame Willermouz," in the way of, but hardly so stout as "Devoniensis," has a nankeen centre, is a nice rose, and "Canary," the name of which well conveys the colour, is very pure, but it is rather delicate, and not very double.

In this list I have purposely confined myself to those which have earned the characters here given of them in an exposed situation and a cold stiff soil. There are, I am aware, several which I might, perhaps, have included with safety, but I would much rather delay those here omitted, that I may include them with equal confidence in a list that I trust I shall be spared to prepare.

THE BIG TREE OF CALIFORNIA.—SEQUOIA GIGANTEA OF TORREY. (WELLINGTONIA GIGANTEA OF LINDLEY.)

BY P. BARRY, ROCHESTER, NEW YORK.

I THINK the readers of the Horticulturist should have further particulars respecting this wonderful tree, not only the "Monarch of the Californian forest" as it has been styled, but the Monarch of the vegetable kingdom. Only think of trees *ninety feet in circumference* and *four hundred and fifty feet from the roots to the extremities of the branches!!* Imagine a hollow tree that a man can enter on horseback and ride through for a space of *two hundred feet, as if he were in the Thames Tunnel.*

The idea of such magnitude in a tree is almost beyond comprehension, and really becomes oppressive. Nothing short of the most accurate and reliable statements which we have now had in abundance, can compel us to regard these prodigious measurements as any thing more than mere fiction.

To this add the remarkable fact, attested by various travellers and persons who reside in California and have explored the forest, that this tree occupies a circumscribed locality of some two hundred acres in extent, forming a sort of natural grove, beyond which it has nowhere been found, nor is it likely to be.

It was evidently intended to be one of the wonderful productions of nature, which like the Falls of Niagara, the Mammoth Cave of Kentucky, or the Giant's Causeway on the coast of Ireland, should be remembered and spoken of to the end of time. Nothing connected with the natural history of that golden region is so well calculated to arrest the attention of the more enlightened portion of mankind than this amazing tree, and the fact that it has excited comparatively little curiosity here, only shows that our sylvan taste has not reached that degree of culture necessary to a just appreciation of the wonders and beauties of the vegetable kingdom. In Europe it has set thousands of persons in ecstacies; it has been lectured about and written about with far greater enthusiasm, than was the discovery of gold either in California or Australia. And why should it not? What is a mine of yellow metal to a grove of such trees, whose age is reckoned by the thousand years, and whose size is of almost incredible magnitude?

This great continent has been most bounteously dealt with in the distribution of sylvan treasures; look at our long list of the noblest trees in the world, more than forty species of Oak, and as many and more of Pine. As Downing once said—"What a forest of wealth compared with that of Europe!" Now to crown all comes this glorious *Sequoia Wellingtonia* or whatever the world may please to call it.

Ah! that Downing had but lived to record this latest and grandest discovery, in his bold and brilliant style. How his blood would have warmed with enthusiasm over such a theme, and how stirring and irresistible would have been his portraiture of this monarch of the woods!

When Dr. Lindley connected the history of the oldest *Wellingtonia* with some prominent historical events, he set the English lovers of trees in a frenzy. "What a tree is this!" said he, "of what portentous aspect and almost fabulous antiquity!" "They say that the specimen felled at the junction of the Stanislau and San Antonia, was above three thousand years old, that is to say it must have been a little plant when Sampson was slaying the Philistines, or Paris running away with Helen, or Æneas running away with good pater Anchises upon his filial shoulders." He closes with the emphatical remark that "it is an important acquisition;" and so to England and to all the temperate and highly cultivated parts of Europe, it is an important acquisition. Is it not important to us also? Surely it is. It may not, perchance, resist the rigors of our extreme northern winters, but over all the continent south of, say the 38° or 39° of latitude it will. It *may* stand at New York. The "Big Tree" grove stands at an elevation of five

thousand feet above the sea level, and where they have snow for two months. A friend who resides within two and a half miles of the grove says, the soil is a sandy loam, moderately dry, and he thinks the tree will succeed in the soil and climate of western New York. I trust it will, but taking its near relative the *Sequoia* (*Taxodium*) *sempervirens* as a guide, I do not entertain strong hopes. But what if it cannot be grown in New York or Pennsylvania, or in any part of New England, if it will, as it undoubtedly will, flourish in Virginia, Kentucky, and all the States south of 39°. If we fail with it in the North, our chivalrous patriotic, tasteful brethren of the sunny South, must take charge of *The Big Tree.* Let them plant it at once beside that loveliest of all Evergreen trees on the earth, the *Magnolia grandiflora*, and then they will have, side by side, the most gigantic and the most beautiful of trees—trees that in the heathen ages would have been Deified. What let me ask is to become of this grove? Will the people of California, I mean the government, guard it against destruction? The men who flock there as to all new countries, are too eager in search of wealth to bestow any thought upon trees, and it is greatly to be feared that unless some protecting power be thrown around it, the Big Tree grove will fall beneath the ruthless hand of speculation and improvement.

What a calamity this would be! These glorious *living* monuments whose history dates so far back in the records of time. There are men in California however, who do appreciate these trees, and we sincerely hope they will awaken a public sentiment favorable to their preservation.

Now as to the name. I see you have adopted Lindley's view that it is a *new* genus, and give his title "Wellingtonia." This may be correct, but I think otherwise. There is no real ground for creating a generic distinction between this tree and the *sequoia sempervirens.*

It is true that they differ in foliage, that is, the foliage of a full grown *S. gigantea* is different from the foliage of a full grown *S. sempervirens*, but among the Junipers, Podocarps, and other families of Evergreens, we see differences quite as strongly marked.

Then the cones are precisely alike except in size; that of the *sempervirens* being about the size of a hickory nut, and that of the *gigantea*, as shown in your plate about the size of a pullet's egg. The cones of both have the same persistent wedge-like scales, with a transverse depression on the outside, the seeds of both are the same in number, situation, and appearance, and the trees contain the same red coloring matter which has given the name of "Red wood" to the *sempervirens.* For a time the absence of the male flowers prevented botanists from arriving at a complete decision, and when Dr. LINDLEY gave the name Wellingtonia, he had not seen them, or I believe he never would have named it a new genus.

Last February Dr. TORREY received specimens of the male flowers from California, and these enabled him at once to place it without hesitation with the *sequoia*; both he and Prof. GRAY, are agreed in this, and these two gentlemen as you are aware, stand at the head of Botanical science in this country. I see too that M. DECAISNE, M. CARRIERE, and several other learned botanists, and

arboriculturists reject the name Wellingtonia, and adopt that of *Sequoia*. Let us do so in this country. We can afford to drop the name of Wellingtonia, and especially as the truth of science demands it.

EDUCATION—WHAT IS IT?—GIRARD COLLEGE.

In the following communication from one of our far seeing philosophers, we recognise an idea of much importance. The example of great institutions with liberal endowments are of great import; man is imitative, and our people especially so; every point, therefore, where example tells, should be studied by those who assume the vastly important task of teaching. That much has been done we freely admit; that every thing cannot be done at once is an axiom we are not disposed to dispute. But that there are some things, which, if done early, will give earlier results, is no less true than that many matters neglected for a few years will require as many to repair the neglect. Such is the project so long ago suggested by our valued correspondent of planting the grounds of Girard College with trees that would not only shade the orphans there assembled with such beneficent views, but that would teach them valuable lessons to be carried into their various walks in future private life.

Education is of various kinds; on some, knowledge acquired through the study of books makes no valuable or lasting impression. In others, the mind is so active as only to require guiding, while in many the heart and the moral feelings are alone deficient; to these mainly, no doubt, we should turn our attention. But example is better than precept, and those examples which are daily before us are the ones which will influence the future. The plan proposed in what follows is *one* among many which have been neglected, of so simple and easy accomplishment that wonder may be expressed at its long omission. Once done it would be completed for a century.

Not two miles beyond this rich college, will be found an example of a public school set down on the side of the Ridge Road, with the boundaries enclosed by a handsome iron railing (a job for some partisan probably), and here the care of the grounds has entirely ceased; it has a few old decrepid fruit trees without fruit; no grass, but on the contrary it is overrun, where not beaten down into mud-holes, by the worst description of weeds!

What sort of education for neatness and order will the little fellows taught here carry to their homes?—none whatever; and who is to be blamed for it? The city distributors of Girard's bounty, who have not set the example of the highest improvement, that of an *Arboretum*, in those palatial grounds!

Of the thousands who visit the college every year, it may be conceived that very many do so to learn what improvements can be carried home to their own communities; did they see a little science brought to bear upon the art of planting, they would be delighted, and they would take to other places ideas to be promulgated and acted upon in their own neighborhoods. It is on this account as much as for

the beauty of the grounds, and the benefit of the boys of Girard College, that we rejoice to have the opportunity of presenting the following remarks from an authoritative source to our readers:

To the Editor of the Horticulturist,—Dear Sir:—Soon after the *Girard College* was organized, and put in operation, I ventured to urge a favorite idea upon the Managers of the Institution, respecting the improvement of the grounds thereto belonging. This was done in a letter to the accomplished architect of the building, who was then a member of the Board having the premises in charge. I know not whether the suggestion has been acted upon; but if *not*, I presume to think it is still worthy of attention, and trust it may be still practicable. Under this impression, I beg leave to invite your attention to the subject; believing that if presented as you can present it, in the pages of the *Horticulturist*, to the consideration of an appreciating community, the good work may yet be performed. As my views were explicitly, though hastily, presented in the aforesaid letter, I take the liberty of submitting to you a copy of the same,—in the hope of reviving the still cherished project, and enlisting the effective co-operation of your valuable journal in its behalf. I would here respectfully add, that if the proper authorities can be prevailed with to carry out the plan, it is important that every tree, so introduced, should be allowed ample room for its complete development. The almost universal mistake, in the *Arboretums* of this country, is in crowding the trees so that they injure each other before they are fully grown. The noble giants of our forests—such as the Cypress, as seen in the Bartram Garden; the Mountain Magnolia, in the old garden of Humphrey Marshall, and the Vegetable Mammoths of California—should all have space sufficient to display their branches in perfect symmetry, until they attain to their utmost dimensions.

Trusting that you, and all those more immediately concerned, will excuse this seeming officiousness in an *outsider*, I am, &c., W. D.

West Chester, July 11, 1855.

TO THOMAS U. WALTER, ESQ., PHILADELPHIA.

West Chester, March 2, 1848.

Dear Sir:—I am not sure that the subject on which I am about to trouble you, has not been already presented to your notice; indeed, I have a faint impression on my mind, that I have seen or heard something to the same effect. But, as a repetition can do no harm, I beg leave to suggest to you,—and through you to your colleagues of the Board of Trustees of the *Girard College*,—that the said Board have now an opportunity (and such a one as can rarely occur), to do a beautiful thing for their own credit, and a valuable thing for the future pupils of that institution. I allude to the planting of the grounds belonging to the College, with one or more specimens of every kind of *Forest tree* in our land, which will grow in that soil, or live in this latitude. By adopting early measures, and employing a competent person, you may soon behold on the college grounds a national *Arboretum*, which will be an ornament to the establishment—a perfect treasury of educational means to its occupants—and a monument to the good taste of its Managers, almost as enduring as the magnificent fabric committed to their charge: a classical *Sylva*,

compared to which the *Groves of Academus* will be pronounced mere clumps and copses!

Entertaining this view of the matter, I cannot but indulge the hope that so precious an opportunity will not be neglected. The cost of introducing a specimen or two of every tree in our forests, would be a mere trifle. It only requires a little *attention at the proper season*, and a person who will engage in the work *con amore*, to ensure the accomplishment of the noble design,—and thus give the finishing touch to the premises which you have so splendidly adorned.

Reflect, for a moment, upon the advantages of knowing, with certainty, the various timber trees with which our country abounds,—of understanding their true character and value in the arts, and all economical purposes; and then consider how easy it will be, for every boy who sports or rambles over the college grounds, to become familiar with the aspect of every tree in the proposed *Arboretum;* and also to learn, from his teacher, or his books, the character and economical value of every species. By attaching a suitable *label*, or painted board, to each tree—showing the *scientific* and most *common name* of the same—the pupils could read as they ran; and would learn to know, and distinguish them, with the same ease and certainty that they become acquainted with the features and names of their comrades. They would thus acquire a knowledge, without an effort, which would always be interesting—and in many cases highly important—in the pursuits of after life. But I have neither space, nor time, to set forth the many inducements which call for the improvement I have thus referred to; and I trust it cannot be necessary to amplify, or enter into details, with gentlemen so well able to comprehend the subject, and appreciate its importance in every aspect of usefulness and elegance.

Believing that you will excuse the freedom of these suggestions, in consideration of the motives which prompted them, I now submit them to the better judgment of yourself and colleagues; and am, Dear Sir, with the highest respect, your friend and obedient servant,

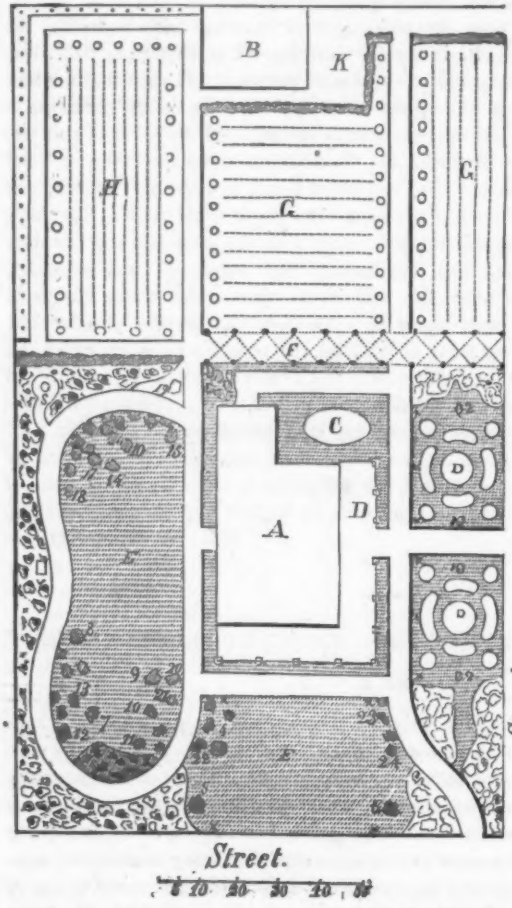
WM. DARLINGTON.

DESIGNS FOR IMPROVING COUNTRY RESIDENCES.

NO. I.

To lay out a rural residence satisfactorily, it is necessary to study the form and location of the ground, as well as to consult with, and ascertain the particular requirements of the family. It would be an easy matter to offer a series of designs, many of which might be useful to those in need. I conceive, however, that it will serve a more useful purpose to select occasionally sketches as they occur in practice, as many opportunities are presented of taking advantage of existing features and turning them to account in the general improvement. Individual taste must be recognised in the disposition of the various adjuncts to a dwelling. While some desire the purely ornamental character to predominate, others have more utilitarian objects in view. The most numerous class are those who wish to have a little of every

thing—vegetables, fruit, flowers, and ornamental trees—as shown in the following design. It was required to arrange the grounds, although limited in extent, so as to appropriate a small spot for flowers, as well as have a few of the most desirable ornamental trees disposed on the lawn with convenient walks for their inspection. Flowering shrubs had also to be kept in view; a small space was also desired for cultivating some of the smaller kinds of fruits, and lastly a portion had to be reserved for vegetable culture.



In arranging these various parts, the principle of *distinctiveness* has been kept prominently in view. On the west side, the short walk leading from the street to the principal entrance of the house leads through a small flower garden, consisting of a few simple figures geometrically arranged. The grape arbor forms a very appropriate division between the ornamental and vegetable ground, and its proximity to the house renders it useful and convenient as a shady resort in summer. The open spaces of grass form a relieving contrast to the groups of trees and shrubs and suggest a feeling of extent; a principle that is seldom adopted in small places, although it is most important; the same space of ground dotted over with plants would appear confused, monotonous, and confined. The fruit garden, which is separated from the ornamental planting by an arbor vitæ hedge, is adapted for dwarf pear trees, strawberries and raspberries. The pears are arranged parallel to the walks, enclosing a space for strawberries. The raspberries are planted on a narrow border close to the fence. Cur-

rant and gooseberry bushes are planted along the walks in the vegetable garden, the whole being excluded from the stable yard and road by an evergreen hedge.

REFERENCES TO PLAN.—A. House. B. Barn. C. Rose clumps. D. Central figures of flower garden. E. Lawn. F. Grape arbor. G. Vegetable grounds. H. Fruit department. K. Yard. L. Piazza. S. Rustic seat. V. Vase. The ground measures 120 feet by 200 feet.

The entire ground is level and elevated; in order, therefore, to improve the architectural appearance of the house, the first floor is elevated three feet six inches above the surface, and connected with it by a small turf terrace.

A few of the principal trees are named below, with reference to their location. Owing to the method I have adopted in indicating the position of the plants on the lawn, I could not conveniently refer them to numbers on so small a scale. They are selected chiefly in regard to color and diversity of foliage. Those nearest the walks are mostly deciduous shrubs, planted sufficiently apart to allow full development. An annual pruning in of the strongest branches will improve their appearance when thus arranged, but not *clipped* into a formal shape. The masses of shrubbery shown by distinct outlines are thickly planted in the first instance, attention being given in the arrangement with a view to a gradual thinning out of the least desirable, as may be found necessary to allow space for the more select kinds. The line of shrubbery included between the walk and boundary north and east of the house is planted in like manner, with the addition of a few hemlock and Norway spruce firs and other smaller sized evergreens on purpose to shelter from cold winds.

The following named trees are placed as indicated by the figures on the plan: 1. Magnolia purpurea, Purple Magnolia. 2. Magnolia conspicua, Chandelier Magnolia. 3, 4. Cedrus Deodar, Deodar Cedar. 5, 6. Abies canadensis, Hemlock Spruce. 7. Liquidamber styraciflua, Sweet Gum. 8. Fagus sylvatica purpurea, Purple Beech. 9. Acer campestre, English Maple. 10. Chionanthus Virginica, Virginia Fringe Tree. 11. Magnolia tripetala, Umbrella Magnolia. 12. Rhus cotinus, Mist Bush. 13. Cytisus laburnum, Golden Chain. 14. Virgilea lutea, Yellow Wood. 15. Halesia tretraptera, Silver Bell. 16. Larix Europea, European Larch. 17. Celtis occidentalis, Nettle Tree. 18. Acacia julibrissin, the Julibrissin Tree. 19. Juglans regia, Madeira Nut. 20. Berberis purpurea, Purple Berberry. 21. Pyrus Japonica, Japan Quince. 22. Buxus sempervirens arborea, Tree Box. 23. Euonymus Japonica, Evergreen Euonymus.

At D in the flower garden, a plant of the weeping cherry, and the * shows the position of sugar maples for shade.

WILLIAM SAUNDERS,
Landscape Gardener, Germantown.

CULTURE OF ASPARAGUS.

BY H. B.

THAT there is a greater difference between the product of a properly cultivated Asparagus bed and a neglected one, than between any garden vegetable that is vended in our markets, is well known to the accurate observer. We are free to say that the majority of market asparagus in this region, is almost good for nothing. It is tough, not one third being edible; this is the result of careless or cheap culture, and ought not to be.

It is my experience that asparagus beds, from seed planted where it is to remain, come as early into bearing as those from transplanted roots. The seed is sown in autumn or early spring, in drills about half an inch deep in heavy soil, and an inch in light soil, the ground being rich and well manured, and at the time of planting not higher than the surrounding ground: raising the surface by top dressing from the walks, and by successions of the best manures, will give it a better chance than transplanting, which proves always a drawback; but in this case the subsoil should be trenched and highly enriched for a depth of nearly two feet before sowing the seed. The next autumn, cover the bed three inches deep with manure. For two years let the plants grow to strengthen the roots, keeping the beds clean, raking off the dead stalks in the fall before manuring, and forking in the manure in the spring; if the soil contains much clay, a top layer of sand will be beneficial for the roots to come through instead of a baked surface. Salt is essential, but it must not be sown over the bed before the seeds have well germinated and begin to be established; then it is essential to perfection and should be liberally employed at least twice a year—in the spring before vegetation commences, and during the summer before a rain.

The grand rule to be observed is, do not cut too much at any period, but especially when the plants are young. Weeds, even the dandelion and nettle, if their shoots are removed as they appear, become gradually more feeble until they disappear altogether. The roots are as dependent upon the leaves as they are upon the root, receiving from them the elaborated sap which they form by means of solar light, and convey downwards for future purposes. When therefore, leaves are not allowed to be developed, the root is weakened, and if the process is continued long enough, it will inevitably die. Now there is no difference between the Nettle and Asparagus in the essential arrangements of their physiology. The shoot of the latter is the stem destined to develop foliage, and if cut off, nature makes another effort and produces a duplicate to replace that which is removed. If a bed of Asparagus were left to itself, a few strong stems would be produced, which are multiplied ten-fold by cutting, each succession being weaker than that which preceded it.

Every cutting therefore is injurious, but the damage is replaced to some extent

by a high artificial cultivation, and within certain bounds the shoots may be cut off without materially deteriorating the plants. Knowing when to stop is therefore the grand secret in growing this delicious vegetable, for the less the roots are stimulated by the effort of reproduction, the finer will be the product next year. In order, therefore, to have sufficient for a family, it is desirable the beds should be so extensive as to allow of enough being gathered without weakening the plants. In large gardens I would suggest a succession of beds, one set out this year being allowed an almost uninterrupted growth till next year; in this way Asparagus could not degenerate.

It is a practice with some gardeners to plant lettuce in the vacant spaces in the beds, and to allow weeds to obtain a footing, abstracting from the soil that nutriment which its exhausted owner so much needed. Every weed should be kept down, and as the growth proceeds, liquid manure should be applied. The properties of salt in relation to Asparagus ought to be well understood by this time. Before rain, all the bed should be strewn over with salt, so as just to cover the ground. This repeated two or three times while the stems are growing, will be productive of great good. Thus with the aid of the sun, air, and manure, it will gratefully repay you; sufficient nutriment will be stored up in the roots, to push forth fine Asparagus shoots next year. Moderation in cutting, and skill in growing the stems and foliage, are thus the two grand conditions to be observed.

An objector at my elbow declares it is his belief that the salt and the manure added to the labor, will make every mess of Asparagus cost as much as what he buys in market. I have no doubt of it, but then—what do we get in repayment; an article four times as good, one quarter of which is worth the whole bunch that you buy; you get nourishment, instead of a very bad temper, to digest your food.

One more observation should not be omitted—keep your plants at some distance from each other, for the stalks can never grow so large when crowded together, as when they have space to receive the sun and air on the surface.

WALKS ROUND MY GARDEN.

BY ALPHONSE KARR.

The Sausage Tree.

A man was once pointed out to me whom credulity had rendered absolutely mad. At first, a person had innocently said to him, pointing to a peasant with some flax-seed in his hand, "There is a man sowing shirts." He smiled. It was then explained to him seriously and truly, that from this seed would grow a plant, which, by means of preparations, would become excellent cloth, and that from this cloth shirts would be made. This idea did not find entrance into his brain without causing a little tumult there, and the people around him continued to amuse themselves with cramming him with the most absurd ideas upon the vegetable kingdom.

One day they told him that there was in the king's garden a sausage-tree of great beauty.

"What do you mean by a sausage-tree?" asked he.

"What's a sausage tree? there's a question! What's an apricot-tree?"

"A tree that bears apricots."

"Well?"

"Well!"

"Well! why, the sausage-tree is a tree that bears sausages."

"Pooh! nonsense! Porkbutchers make sausages."

"I know very well that porkbutchers make sausages; porkbutchers make sausages, it is true; but what sort of sausages? It is just the same as little Eulalie, who lives near you; she makes flowers; but in stuffs or wools. Are you astonished that because Eulalie makes roses, that rose-bushes should produce them likewise? Eulalie makes artificial flowers."

"What! do porkbutchers then make artificial sausages?"

"Exactly so, my good friend; but the sausages of the porkbutchers are like the roses of Eulalie to nature, what the false is to the true. If you had ever eaten the fruit of the sausage-tree, you would never allow your teeth to touch the gross imitation that you have hitherto eaten."

"Ah! but, now tell me, are there really any sausage-trees?"

At this mark of wavering incredulity the friends only deigned to reply by shrugging up their shoulders, and continued to talk among themselves about the sausage-tree, without appearing to be willing to admit incredulity any longer into their conversation.

"Is it the garlick variety which is in the king's garden?" asked one.

"Yes," replied the other.

"Ah, that's the most rare of all."

"But the tree had very little fruit on it this year. You are aware that the sausage-tree originally comes from a hot climate; and the winters here try it severely; part of the blossoms were destroyed by the late frosts."

"It is a pity we cannot get one, to convince our sceptical friend here."

"I could easily get one, because I am intimate with the head gardener; but I don't think it worth the trouble to convince him; I hate these upstart minds, that are so disdainful of the beliefs of the vulgar; who aim at producing an effect by giving faith to nothing; who appear to take men for simpletons, amongst whom they form a brilliant and solitary exception."

"But," says our hero, "I ask nothing better than to believe when I am convinced by proofs."

"Proofs! Have I not already told you that shirts were sown and reaped? Do you not know that cotton grows upon a cotton-tree, and that sugar is the produce of a reed? Perhaps you don't believe that."

"I ask your pardon; yes, I do."

"I will be bound you doubt that hemp is the seed of ropes, or that snuff is the seed of the ideas which we sow in our brain through the nose. Or perhaps you do not believe that peaches grow upon peach-trees; you prefer believing, no doubt, that porkbutchers make peaches?"

"No, I don't say that."

"Neither do you believe, I suppose, that rose-bushes produce roses; you think that all roses are made by Mademoiselle Eulalie, do you not?"

"Not at all. I know very well—"

"You really know nothing at all. Do you know that gunpowder is the seed of death? Do you know that apples come from trees? But you say you will believe

nothing without proof, and will doubt next whether braces grow upon the Indian brace-tree?"

"Well, I certainly did not know *that*. What, do you say that braces grow upon a tree like apples?"

"I do not tell you that the tree is like an apple-tree; on the contrary, it is a fig-tree, which is called *ficus elastica*, because whilst cutting the braces which it produces, they draw Indian rubber from it."

"Ah! that's a different thing; I thought you were speaking of braces with *metal* springs."

"That's the way in which you always believe. Those metal springs are artificial springs, a wretched imitation of the *ficus elastica*, or brace-tree of India; so with the roses of Mademoiselle Eulalie; so with the sausages of the porkbutchers."

"Let us prove to him that braces grow upon the brace-tree.—With all my heart; here is a botanical work, look for the word *Ficus*.

"*Ficus*. *Ficus religiosa* — that's not it. *Ficus bengalensis* — nor that. *Ficus virens, ficus scabra, ficus mauritana* — none of them. *Ficus populifolia, ficus ulmifolia*. No. *Ficus laurifolia, ficus citrifolia, ficus crassinervia, ficus ferruginea, ficus racemosa, ficus phytolaccæfolia, ficus glaucophylla, ficus scandens, ficus rubiginosa, ficus macrophylla, ficus nymphæifolia*. No. Where can it be? Ah! here it is *ficus elastica*."

"Well *ficus elastica*, does it exist? Yes or no. Answer. Can you read? What is that before you."

"*Ficus elastica*."

"Well, do you believe that India exists? If you do not believe that India exists, why we must show it to you on a map; besides you know what *Poules d' Inde* (turkeys) are? You know what *Marons d' Inde* (large chestnuts) are? Now here are braces produced from the *ficus elastica;* they are good for nothing, they grew at the greenhouse at the Jardin des Plantes. There are none good but such as are brought from India every year, just the same as they grow pine apples; all foreign fruits are in the greatest perfection in their own country. It is said the crop is excellent this year, the brace trees are loaded. Well, do you believe me now? Have you proofs enough of that?"

"Oh, yes, when you produce good reasons—"

"Well it is just the same with the sausage-tree. Is that more surprising than braces on the *ficus elastica*? If you are only willing to believe what you have seen, you will not believe much my good friend."

The next morning they had a large *cervelas a l' ail* (a large sausage seasoned with garlic) served for his breakfast.

"Well my friend, we have been fortunate enough to get one; as nothing could convince you but proofs, here it is."

They tasted the sausage and found it excellent.

"Do you imagine a vulgar porkbutcher could make anything like that?

Rien n'est beau que le vrai; le vrai seul est aimable'
(Nothing is beautiful but truth; truth alone is lovely.)

"And yet this even is not half so good as it might be; in the first place, it did not grow in its native country, and then it is not quite ripe, but such as it is, it is quite another thing from those the porkbutcher so coarsely imitates."

"Well, but this is very astonishing."

"What is there astonishing in it? You know very well that garlic grows in the earth. Does not nature produce pig? Thus you admit that nature has produced the two elements with which porkbutchers make their bad garlic sausages, and you are not willing to believe that she has produced these elements united in one and the same fruit?"

Has not nature given certain arums the odor of a leg of mutton, that has hung too long? Has she not given to the Buddlea the color and the odor of the stamens of the saffron? Has she not? But you must have proofs! Monsieur believes nothing without proofs. In good sooth, my friend, I must tell you the truth, you become quite unsociable; there is no such thing as holding a conversation with you, none of the ingenuousness of friendship; everything assumes the air of a theorum, you must have proof of everything. It will not be long before you will require proof that the sun shines, or that it rains. And truly, I don't know how we shall furnish you with it, &c., &c.

This nonsense uttered with the utmost confidence by five or six men, and all directed against this poor fellow, whom they constantly accused of incredulity and Voltairanism, whom they style a skeptic, strong minded, or M. Arouet, ended by completely turning his brain.

INFLUENCE OF EXTERNAL AGENTS ON VEGETATION.

FROM DARBY'S BOTANY OF THE SOUTHERN STATES.

The agents which exercise a decided influence on vegetation are *light*, *heat*, *water*, and *earth*.

The concurrent influence of all these agents, in a greater or less degree, is absolutely required for the perfection of vegetable products; and according as some of them exist in excess, or in diminished quantity, is the functional operation of the vegetable organs injured or destroyed. Different plants require these agents in very different degrees, and hence the distribution of plants over the face of the globe; some flourishing near the snow line of the mountains, or near the limits of perpetual snow, north or south, while others can exist only under the influence of tropical heat. Some grow amidst the sandy deserts, others only immersed in water. Some grow in the caverns of the earth while others must have the direct rays of the sun. Some require a rich soil, others grow suspended in the air. From this adaptation of vegetation to every variety of influence, the earth is covered with verdure; from the perpetual snows of the mountains or the arctics to the equator, each position giving existence to its appropriate flora.

Light.—The most obvious effect of light on vegetation is the production of colors, and this it effects by decomposing carbonic acid, and depositing the carbonaceous matter. In most cases, certainly, light is absolutely necessary for the deposition of the green coloring matter, since most plants become perfectly colorless by growing in situations in which they are deprived of light. There are cases, however, in which plants deposit the green chromule, when excluded from the light. Green vegetables have been found in caves of the earth, from which the light of day was excluded, and we have seen the cotyledons of the Mustard and the Impatiens balsamina green, when the seeds have germinated within the perfectly closed pericarp; and I have now before me a large onion in which several of the central layers are as green as the leaves, while the parts above and around them are perfectly white. That these are exceptions to a general rule is manifest from innumerable examples to the contrary, constantly occurring within the observation of every one. If a board lies upon the grass for a short time, the grass becomes blanched; plants growing in a dark cellar are colorless; the interior of the cabbage is white, while the other leaves are green, and if these are removed, those that are exposed soon become green. Plants, which in their natural situation are white, by accidental exposure become green; the side of a potato from which the soil has been by chance removed, soon

changes its color from white to green. It may then be laid down as a general principle, that light is the great agent in the production of vegetable colors. All parts of the solar spectrum are not equally efficient in the production of vegetable colors. The *yellow rays*, according to Draper and Hunt, are the most powerful in the production of colors.

Light, Raspail says, influences plants to produce vascular tissue, and to make them combine with earthy bases; while in darkness they produce the cellular tissue, and combine with ammoniacal bases. That light exercises an important agency over the growth of vegetables and their secretions, cannot be doubted. An equal amount of light and darkness seems to be the proportion in which the greatest amount of vegetable vigor is attained. This is seen exhibited in the equatorial regions, where the days are uniformly twelve hours long, and the nights of equal length, and there we find the most luxuriant vegetation.

If, according to the hypothesis, light acts in producing the firmer and more compact parts of vegetables, and in its absence the more *yielding* and succulent parts are generated, we should be led to suppose, that where these periods were equal, the perfection of vegetable products would be found; and if the light is in much greater proportion than that of equality, just in the same proportion should we expect to find the products of such regions harder, smaller, and less symmetrical. This is the exact state of vegetable products in high latitudes. Trees become harder, smaller, and less luxuriant the higher the latitude, for during the period of their growth, the sun is a great part of the time above the horizon. That this is owing to the action of light, is proved by the fact, that by transporting vegetables into higher latitudes, from equatorial regions, and keep them in an atmosphere, at the temperature of their natural situations, by means of the hot-house, they flourish during the summer; but during the short days, and long nights of winter, they droop, exhibiting their suffering from the due influence of the solar rays.

Raspail's theory above noticed receives confirmation from the fact, that those vegetables which consist entirely of cellular substance, are produced only in the absence of the light of the sun, such as mushrooms, &c., their growth ceasing at the coming of light. And it is a common notion among gardeners that melons, cucumbers, and like pulpy fruits, increase much more at night than during the day. Although Fungi grow only in darkness, they will never produce spores capable of germination, without the action of the sun's light, and in cases where the light of day never enters, there may be Fungi, but they never increase or perpetuate themselves by the production of spores.

It is during the direct action of the sun's rays, and by their agency, that the most important vegetable products are generated. It is by their influence that water and carbonic acid are decomposed, the oxygen being mostly liberated, and the elements combining in other proportions, for the formation of the various oils, resins, &c., including the most important and abundant of the vegetable products. What is generally termed the sleep of plants, that is, the folding up of compound leaves, and the closing of flowers, is, no doubt, in most instances, occasioned by the want of the stimulating action of the solar rays; for we see leaves and flowers, that were folded up during the night, expand with the first rays of the morning sun.

We have upon record many instances of the singular phenomena of flowers during twilight emitting flashes of light. It is said the daughter of Linnæus first observed this emission, exhibited by the *Tropæolum Majus* or Garden Nasturtium. The flashes occur only during twilight, in the morning or evening; those of the evening being much the most brilliant. The plants, from whose flowers these flashes have been observed to issue most frequently, are the Marigold, *Calendula officinalis, Orange lily, Lilium bulbiferum*

African marigold, *Tagetes patula*, and *Sunflower*, *Helianthus annuus*; but Mr. Trimmer, in an article in the 2d vol. of "Paxton's Magazine of Botany," p. 193, observes that he had observed it in many other flowers.

The cause is supposed to be electrical, as the flashes are more brilliant, when the atmosphere is the most highly charged with electricity. "In walking in my garden," says Mr. Trimmer, "in which was a considerable quantity of Nasturtium in bloom, not at all thinking of the flashing of plants, I was struck with the very vivid flashes that proceeded from them; the scintillations were the most brilliant that I had ever observed, at the same time the sky was overcast with a thunder-cloud;" and he further remarks, that he always found them most brilliant under such circumstances. The lower orders of plants, as the fungi, have long been noticed as giving light under particular circumstances. Some in New Holland, species of Agaric, are said to produce light enough to read by. In the mines of Germany certain fungi have been long celebrated for the light they emit.

PRIVATE ARCHITECTURE.

The institutions of a nation may be inferred from its buildings much more certainly than a man's character from the bumps on his cranium. Castles on hill-tops, huts in the open fields, a few grand churches and walled towns, imply a society composed of lords, vassals, an influential priesthood, and insecure artisans and traders. Provincial towns of mean buildings, in a country whose capital is beautified with monuments, palaces and public gardens, indicate a centralized despotism. The solitary temple, the clumps of small dwellings, opening into a common garden, represent fairly the theocratical government and polygamy of the Saints of Utah; while State capitals, county buildings, separate dwellings and numerous small churches, are the natural products of our States-Rights Federation, local legislation, family institution, division into sects and religious toleration. Political philosophers have reconstructed the government and social condition of Herculaneum from its houses and furniture, as well as Cuvier did the mastodon from a single bone.

Architecture marches abreast with education, science, arts, wealth, taste and political freedom. If one advances, all advance. We excel the last generation in public schools, learned bodies, painting, sculpture and music; we are richer, demand a higher standard of comfort, and do not whip Quakers, drown witches, or disfranchise Catholics. Owing to the same general causes, we build better houses. Compare those of modern erection in our city with those pulled down to make way for them. Our hotels are more spacious, churches more imposing, stores more elegant, and dwellings more convenient. In these last, the superiority is particularly striking. Chemical science has sent to the buyer of findings and old iron the grease-dropping, expensive and dangerous lamp, and given us the neat, cheap and safe gas-burner. Physiological science has settled the point, that cleanliness is the best preservative of health, and good dwellings are provided with bath houses. The invention of improved furnaces is gradually doing away with fire-places, grates, stoves, and their suite of coal-scuttles, pokers and "helps." Dumb-waiters, speaking-tubes and bells contribute their share to the increasing convenience of domestic life. Ventilation is better provided for; a child may lower or throw up a sash. The ceilings, too, are higher, the stair flights are not so steep, and there is a decided effort at a better style of exterior ornamentation.

These improvements, however, are confined, for the most part, to the dwellings of persons in easy circumstances. Under the present system of extravagance, credit, and no homestead exemption, the poor are tenants—and landlords build houses with reference to the percentage of probable profits, and not to the convenience, health, or economy of living of the occupants. Mean dwellings yield the highest rents in proportion to their cost. Hence they abound. Their walls are thin as the lips of Avarice. How tenderly the mason treats them until the joists are laid, which he hopes will hold them up! How carefully the carpenter draws up his beams and rafters! he fears to dash the shell of the frail structure. How happy are both to finish up and have the bills settled before the walls settle and crack! The tenant moves in. Luckless man! he is an unwilling witness to the family affairs of his neighbor, on either side of him. He hears all the loud tones, noisy children, squeaking beds, and creaking shoes. If he could spare money, he would present each of them with a carpet. He is afraid the walls are not solid, for they crack at the partitions, and over the windows. He would fear to invite many friends into the upper story. Foreigners find our family circles dull: they would have more dancing and lively games. But, we ask, is this reasonable, when a Polka Redowa makes the house shake, and an old-fashioned contra dance might land the whole family in the streets, under an indefinite quantity of shivered household gods, lath and plaster, and roof-timbers? There is not one tenant house in five that stands two years without cracked walls. In conflagrations, they come crashing down, as soon as joists and rafters are burnt through; sometimes sooner. How many valuable lives have been lost in our city owing to this cause! As we write, the loved and honored dead pass in solemn review before our mind's eye. The hands we pressed, and the forms we admired, were crushed under the smouldering masses of brick and mortar. We have aided in digging their disfigured remains from heaps of rubbish. Why should our laws give the right to set man traps on every lot?

Our style of building is fairly open to the charge of monotony. The German emigrant as he leaves Antwerp or Havre, takes a lingering look at their slated roofs meeting at every angle, shooting up into pinnacles, or sloping to the lower story, their steep sides relieved by dormer windows—at their irregular buildings, with the lights and shadows playing about their angles—the arched gateways—the niched and sculptured facades, with their mullioned windows, arched at every angle, trefoil, eliptical, round or oblong, in rich variety, and running up into gable ends or turrets, as the taste of the architect may have dictated. He will not see such a sight when he lands at New York, nor when he reaches Philadelphia. View Market street, from the Schuylkill Bridge, and each side looks like a block of buildings, its straght top line broken only by the rising at intervals of an additional story. All the houses are oblong squares; the visible section of each roof is of the same shape; each presents the same dripping eave; doors, windows, sills and shutters are all square. They are almost as uniform as a row of bricks set up on end. We say "almost," for there are a few, of recent construction, upon which the eye reposes with pleasure. These owe their attractiveness to the variety of form exhibited in windows, doors and front, and to the relief of the facade, by columns and other ornamentation. The streets devoted to private residences are scarcely more varied. There is an endless repetition of the square window, door and front, and the "three-story front and two-story back." Unless you know a street well, it is ten to one that you mistake it for another. There are whole blocks in which the houses resemble each other as closely as pigeon holes. A tenant of one shall enter another, hang up his hat, make himself at home in the parlor, ring for tea, scold the hired girl, and not discover his mistake until he asks why his wife don't come to kiss him.

Philadelphia genius has not exhausted itself in the invention of the square window and the "three-story front and two-story back." Something better is in store for the generation growing up, who have studied the arts of design better than their fathers. We cherish hopes of living to see somebody bold enough to build a house unlike others on the same street—anything to break this wearisome iteration of the square, even were it a Chinese pagoda for a tea-store, or a Swiss cottage for an ice-cream saloon. Who can tell but that, before many years, we shall see a Gothic arch here and there, or a projecting window, or a few steep roofs, or a gable end or two turned to the street, or the sunken entry, sheltering the visiter from the rain or sun, while he waits for a tardy "help" to answer the bell. Stained glass may be introduced. There are even now among us, in West Philadelphia and on Schoolhouse lane persons who appreciate that promise in Holy writ: "Behold! I will lay thy stones with fair colors, and thy foundation with sapphires; and I will make thy windows agates, and thy gates with carbuncles, and all thy borders with pleasant stones."

We recommend this whole matter to the Academy of Fine Arts. A painting on the Academy walls pleases the few who will pay twenty-five cents to see it. A beautiful building or window gratifies thousands gratis. Architecture has, too, the advantage of a wide range. Painting and sculpture are imitative arts, limited by the outlines of the objects they represent. Architecture is limited by nothing but the laws of matter and the inventive genius of man. It is capable of inexhaustible variety.

[The foregoing we clip from the Public Ledger as worthy of preservation in our columns. It is not often that more just sentiments on the subject discussed, are condensed within the same space.—Ed.]

PLANTS FOR HANGING VASES.

BY THOMAS MEEHAN, GERMANTOWN, PA.

WHILE our architects and citizens are debating the propriety of originating a perfectly new style of American Architecture,—necessity—the mother of invention—is leading our villas and country residences out of the time worn track, by the force of circumstances alone. We cannot do without *shade*. It is the one idea that pervades all our visions, and enters into all our calculations of ease, luxury and comfort. In no other country besides ours, and where the pursuit of happiness leads men so rationally to the delightful pleasures of country life, is shade so much sought after, or so very desirable. Protection from our scorching summer's sun is almost born with us,—and has become one of the prominent phrenological "bumps" on our national cranium. Shade trees surround all our houses of any pretensions; and porches, verandas, and piazzas in every direction, tell us that our houses have many striking peculiarities which distinguish them from those of foreign lands. Let the style be what it may,—Gothic, Grecian, Norman, or Elizabethan, the piazza or veranda must not be forgotten or set aside.

It occurs to me that while enjoying the shade the piazza affords, we may at the same time have the gratification of being surrounded by our floral pets, and that too in a manner that will give a pleasing variety to our gardening operations. Not only may we have beautiful climbing vines and flowers trained to the posts, pillars or connecting lattice work, but over our heads and around us the most interesting effects may be produced by growing flowers in suspended vases or baskets. Nature

has kindly provided us with the means of enjoyment, under even apparently the most unpropitious circumstances, and here she affords us a large list of plants, which not only grow well in the shade, but from their drooping or pendulous habit seem to have been as expressly designed by her for this very mode of culture, as a watch from its works seems designed to measure time. As she has provided the plants, we cannot do less than supply the baskets, and accompanying this article, we

give sketches of very pretty patterns made of pottery ware, which or similar, may be had of the principal horticultural stores in the large cities. Some very handsome articles may also be made for the same purposes out of branches of trees; Oak, Cedar, or of some durable wood. Common boards may even be nailed together, and taste and ingenuity exercised in covering it with bark, or the scales of Pine cones.

In these vases, and in the partial shade afforded, the following plants will thrive well, requiring but little water or other attention; and at the approach of winter may be taken down, and hung in the parlor, hall or entry, to add an additional charm to domestic pleasures for the rest of the year.

1. Linaria cymbalaria; (*Ivy leaved Snapdragon.*) Well known to European travellers from its frequency on the walls of shaded ruins. It is a delicate and graceful grower bearing a profusion of small purple flowers the whole season.

2. Lysimachia numularia (*Yellow creeping Loosestrife*) has a very pretty habit of growth in its slender stems and small opposite leaves, bearing as it grows in their axils yellow flowers about the size of gold dollars.

3. Saxifraga sarmentosa (*creeping Saxifrage.*) Its foliage is very prettily veined and marbled, and the spikes of white flowers it throws up, are curious as well as handsome.

4. Fragraria Indica; (*Mock Strawberry.*) Its fruit though as insipid and tasteless as the food of ghosts might be supposed to be, is so very pretty, and it does so well in the shade, that there are few things I would sooner recommend for our purpose.

5. Vinca major; (*Large periwinkle.*) An evergreen with leaves one and a half to two inches long by one broad, and large blue flowers opening only in the spring; best adapted for large baskets.

6. V. minor, (*Lesser periwinkle.*) Smaller every way than the last; yet very distinct and handsome.

7. V. perenne, (*Creeping periwinkle.*) A very distinct species, with long slender creeping stems, small leaves, and small very early blue flowers.

8. Cereus flagelliformis; (*Cats tail or creeping cereus*),—grows well in the shade in summer, and when removed to the parlor in winter, flowers well near the light of a window.

9. Sedum Sieboldii; (*Siebold's stone crop*) with pale purple flowers and glaucous leaves; requires little water or pot-room, and is well adapted for a small vase.

10. Sedum acre; (*Yellow stone crop*, or "*Love entangle*"), doing well in either sunshine or shade, and a most abundant bloomer.

11. Viola odorata arborea, (*Tree violet*), which, with strong central stalks send out numerous slender branchlets, hanging over the sides of the pot or basket, and bearing a profusion of very sweet double blue flowers.

12. Calystegia pubescens, (*Double convolvulus*). A pretty flowering plant and not likely to be so much objected to on account of its creeping roots here as in the open ground.

13. Epigea repens, (*Ground laurel*), a hardy evergreen with deliciously scented waxy white flowers, very pretty.

14. Mitchella repens, (*Partridge berry*), another evergreen with sweet scented white flowers, succeeded by numerous holly like berries.

15. Polemonium reptans, (*creeping valerian*), erect spikes of blue flowers, from branchlets which hang over the sides of the basket.

I have confined myself to hardy or very nearly hardy plants; and which will thrive and do well in the shade—any of the above may be depended on.

[Our correspondent has noticed a mode of growing a very interesting variety of plants, and might have extended the list very greatly. We merely indicate a few more here, with the request that Mr. M. will pursue the subject, and give a list of plants suitable for hanging in the greenhouse, to be thence, if required, transferred occasionally to the drawing room or conservatory.

Cobœa scandens as a basket-suspending plant does well, but requires a largish pot and plenty of space to droop in.

The Lophospermums. Every species of this genius will answer well.

Maurandia. All the species and varieties.

Nierenibergia. All will do well in baskets.

Roses trained downward, particularly the *Viscomtesse des Cases,* will grow and flower well in baskets in greenhouses.

The Ivy-leaved Geranium in suspended pots quite covers and conceals them.

The Verbena, and even the grateful Strawberry, might be cultivated in this way, under glass, and would yield to few other plants for beauty in bloom and fruit, besides yielding a dish now and then of one of the most health-giving fruits we possess. —Ed.]

CULTIVATION OF THE GRAPE.

BY M., NEW YORK.

The very unusual attention which is now being attracted to the cultivation of grapes throughout the United States will perhaps render acceptable to your readers the results of a ten days survey of some of the best vineyards of our country and an indefatigable questioning of their gentlemanly preprietors.

My field of observations was chosen where, as is well known, the grape has been most extensively and most successfully cultivated—upon the picturesque hills of the Ohio, environing the Queenly City of Cincinnati.

Here within a radius of twenty miles are planted fifteen hundred acres of vineyards, two thirds of which are in bearing. The average yield will not be estimated at less than two hundred and fifty gallons of wine per acre, which will give at the present yield two hundred and fifty thousand gallons of wine worth from one dollar to one dollar and fifty cents per gallon.

The rapidity with which this cultivation increases, may be inferred from the statistics which show that this year were sold in Cincinnati *two millions* of grape cuttings and *four hundred thousand* roots; a quantity sufficient to plant more than six hundred acres of vineyards.

These were distributed to every part of the Union, from New York to Missouri and as far south as Georgia and Texas. The average prices were, for Cuttings two dollars and a half per thousand and for roots forty dollars per thousand.

It is interesting to know that while the increase has been so large in the quantity of wine manufactured, the demand increases in a still greater ratio. The first cultivators found considerable difficulty in obtaining a market for the produce of their vines but now they have a ready market for their vintage at good prices.

In addition to the amount under cultivation for grapes above stated, other parts of the south and west are extensively employed in the same manner. At Hermann Missouri—there are five hundred acres and in Indiana, Kentucky, Tennessee North Carolina and Georgia are probably as many acres more.

We who admiringly glance over these thriving vineyards scarcely think of the many difficulties which surrounded the introduction of the grape into our country.

Many years were spent in unsuccessful attempts and not a few instances of severe loss and disappointment to the early cultivators occurred before success was attained.

Immigrants from the Vine-Clad hills of Switzerland, France and Germany brought with them both the European vines and the skill to cultivate them; fondly hoping to reproduce here about their new homes, that which had become to them the emblem of peace and plenty; the name of which like the "Hearthstone" of our more northern ancestry was the word around which clustered all the associations of *Home.*

Although from the earliest settlements of the west various efforts were made to cultivate the vine, both by importing foreign varieties and by selecting the best productions of our native wilds; not one of these early vineyards is now in existence and no one has to this day, in any part of the United States, been successful in obtaining even a tolerable vineyard from any foreign grape.

Nor has any one of the hundreds of nurserymen and amateurs who have been and still are industriously striving to obtain new seedling varieties yet produced one which has been sufficiently valuable in all respects to come into general cultivation.

The only source then from which has been derived those two or three varieties which have formed the basis of American success, has been our *native grapes.*

While this infant enterprise was maintaining a doubtful conflict with difficulties seemingly unsurmountable; it received the timely aid of Mr. N. Longworth, even then one of Cincinnati's wealthiest citizens who after spending more than one small fortune in fruitless attempts to introduce the foreign vine and vinedressers, obtained and proved the value of the Catawba Grape which now constitutes nine tenths of the vineyards cultivated in the west. It is a native grape obtained from the mountains of North Carolina.

In the manufacture of wine Mr. Longworth has rendered to the country no less signal service—for without any experience to guide him, which was adapted to our new circumstances, a multitude of vexatious disappointments and losses must be met and overcome. Even after years of successful manufacture a year or two since

through some untoward circumstances he lost by bursting in a single season thirty-six thousand bottles valued at one dollar per bottle—enough to have ruined any ordinary fortune.

No wonder then that all the vinedressers of the country regard Mr. L. as the father of wine culture in the United States; he having accomplished by his own private fortune and untiring enterprise, that which must otherwise have failed or only succeeded by slow degrees. Mr. Longworth is still extending his arrangements for the manufacture of his "sparkling Catawba" by building yet other cellars where the process peculiar to the manufacture of this wine may be perfected. His cellars furnish this year one hundred and twenty thousand bottles of the "Sparkling," and next year he expects to increase the amount to two hundred thousand bottles.

The "Still" or "dry" wines are the kind chiefly made by other cultivators, indeed no vineyard, however small the cellarage of its proprietor, seems to be without its casks of wine, but the manufacture of the "Sparkling" requires a deep cellar with large tuns for its fermentation.

Great efforts are being made by the most enterprising cultivators to produce and introduce new varieties of the grape but at present none have been sufficiently tested to entitle them to a very prominent place in general cultivation. Thus far the Catawba stands unrivalled. The Isabella in that climate ripens its berries unequally; and the "Cape" is even being dug up as not worth cultivation.

Mr. Longworth, Mr. Buchanan, Dr. Mosher and all who have tried it express great hopes of the "Herbemont" and it is forming a large share in the new plantations now being made. It is said to blossom about eight days later than the Catawba, and to *mature* its fruit several days *sooner*. It is a small, nearly black berry, growing very close on the cluster—very sweet with tender pulp and thin skin and not as liable as other varieties to be affected by the "*rot.*"

The most approved method of preparing the ground for a vineyard is by trenching with the spade two to three feet in depth during the fall and winter previous to planting.

Cuttings are mostly used and are by many preferred to *roots* even at the same price. The argument in their favor being that the roots which are produced from the foot of the cutting when once disturbed will not readily grow again and these lowest roots are for the grape admitted to be the most important. The cuttings are planted two in a hill in the place where they are intended to remain and if both grow one is cut off or removed to fill vacancies. The usual distance being about three by six feet apart.

The cost of trenching a vineyard varies with the nature of the soil, the amount of stone encountered in the subsoil and the amount of under draining, from sixty to two hundred dollars per acre—and the planting including the cost of cuttings from fifteen to twenty dollars more.

The labor required during the first three years is very slight; thorough hoeing two or three times in a season and spring and summer pruning is all that is necessary. In the second year the vineyard is supplied with stakes, usually of good white oak

heart, costing about twelve to fifteen dollars per thousand. Locust stakes are better and cost about double that sum.

The common practice is to have only a single stake to each vine; although some very successful cultivators use two stakes with two "bows" to each vine.

The "bow and spur" method of trimming is the most general method although many prefer instead of bending the branch in the shape of a "Bow" or circle, to train each vine across to the next stake in the row.

Mr. Robert Buchanan, very kindly furnished me with the yield in wine from his vineyards, as a basis to estimate the profit of the business. I think, however, that most cultivators will fall nearly one-fourth short of this result.

The estimate is from a very exact account kept of the produce of his Vineyard, during the seven years 1848—1854, inclusive, and as follows:

In 1848 from	2	acres.	265 galls. per. acre.
" 1849 "	3	"	310 " " "
" 1850 "	3¼	"	350 " " "
" 1851 "	4	"	175 " " "
" 1852 "	5	"	340 " " "
" 1853 "	5	"	347 " " "
" 1854 "	5	"	140 " " "
			2427

Being for the whole period an average of 346 galls. per acre, as the annual yield.

The great enemy of the vintner here is the *rot*. Of this there are two kinds; although some persons think there is but one, with a slight variation in its manifestation. The first makes its appearance in the form of a spot of yellowish brown upon the berry, and is called the "spot rot." This spot rapidly enlarges, so that in twenty-four hours from its first appearance in a vineyard, one-half of the crop is often blackened, and presents the appearance of having been for weeks affected with decay.

The other variety of this disease first shows a slight discoloration under the skin of the berry, sometimes in veins or blotches, and has hence derived the name of "blue rot."

In the vineyard of Mr. Mottier, I saw a portion of his vines so affected by this disease, that by slightly jarring the vine a shower of berries would fall to the ground.

All the searching and experimenting of the best vine growers, have failed thus far to discover aught of its cause or remedy. Some have in despair given up the attempt to make any discoveries in this direction, and are in hopes to escape the difficulty by finding new varieties not subject to the disease.

The mildew in some seasons affects the berries soon after the fruit is "*set*" and presents the appearance of having meal sprinkled over the whole cluster.

Both the rot and mildew when examined by a microscope, show a growth of Fungi upon the surface of the berry, but whether this microscopic plant is the cause or only the effect of the disease, is not yet a matter upon which the "Doctors" agree.

I was much gratified also by a visit to Mr. Charles Reemelin, formerly a member of the State Legislature, and quite prominent as a politician. The more quiet pleasures of his farm and vineyard have, however, of late years, won him from his public life, and he is enthusiastic and energetic in his cultivation of the grape. He adds to an extended European observation, an intelligent American experience, and in his enthusiasm has actually prepared a Manual of the Grape, a work much needed, giving in its minutest detail the instruction necessary for beginners in vineyard culture.

This work will soon be issued by C. M. SAXTON & Co. of New York, whose extensive list of agricultural works your readers are already acquainted with.

Throughout the country there is no new branch of agriculture receiving more general attention than Grape culture, and at the present rate of increase, the next decade will find our production of wine, a very considerable item in our agricultural statistics.

It is an interesting question how this will affect our population viewed in relation to the subject of intemperance. I would not attempt to decide this question dictatorially, but it does seem to me that the manufacture of wine in all its concomitants is a thing so utterly unlike the surroundings of those pests of every neighborhood where they exist, the brewery and the distillery, with their horrid stench and their bloated and filthy laborers, that the two things are in all else as opposite. The occupation of a vinedresser, is one requiring a higher grade of intellect than even the ordinary branches of farming, and all pertaining to the vintage is chaste, joyous, and beautiful. Rarely a besotted vintner can be found, and in the wine districts of Europe, there is not a tithe of the drunkenness that prevails where the "Worm of the Still" supplies without competition the beverage of the people.

STRAWBERRIES.

BY P. BARRY, ROCHESTER, NEW YORK.

A note or two concerning this season's experience here with some of the more recent varieties of strawberries, may be of some interest.

Scott's Seedling, of which we had but a very small bed, and consequently a trial not quite satisfactory, has not come fully up to its Boston reputation. It is large and handsome, and very distinctly characterized by its long conical form; crop moderate, and flavor rather indifferent. I hope to report more favorably of it next season.

Longworth's Prolific and *McAvoy's Superior*, of which we had good beds, in fine order for a fair trial, have both turned out poorly—the crop has been light, and the berries of both imperfectly filled out. This by the bye, is a general failing of all the Cincinnati varieties. Whilst I still rank these two varieties as good, I decidedly prefer, for our section, *Burr's new Pine* and *Walker's Seedling*. The latter variety is of undoubted excellence and value, as a staminate.

Moyamensing improves by acquaintance, and is really a productive and excellent fruit.

Iowa, "Iowa male" as some call it, and "Washington" as many of the Cincinnati growers have it, is a prodigious bearer (staminate), of a pale red color and rather indifferent flavor, very hardy and valuable for market.

Jenny's Seedling when fairly treated is an abundant bearer, and a good berry, hardy and vigorous. *Genesee* has been pretty extensively tested, and proves to be a great favorite. It is a staminate, uncommonly hardy and vigorous, the berry large, roundish oblong with a long neck, color light shining red, very beautiful; flavor medium. *Monroe Scarlet* continues to prove whenever tested, an immense bearer, of good size and fair quality. The "*Orange prolific*" is a prodigious bearer, bright color, firm, and quite late. Of *Jenny Lind*, *Pennsylvania*, and some other new American sorts, I cannot speak now, not having given them a full and fair trial; another season will prove them.

Hooker's Seedling, raised by H. E. Hooker, of Rochester, a large conical, dark crimson berry like Black Prince, evidently a seedling from it; very productive, of good quality, will rank among the best new sorts; a good match for Walker's, which is also from Black Prince no doubt.

Two years ago, I received from some one in Steuben county, N. Y., a few plants called "Steuben's Seedling." This season they have borne well; fruit dark red, firm, and of good flavor; plant very hardy, vigorous, and productive. I think well of it, but it now requires more than ordinary merit to entitle a new sort to attention. We have tested many new foreign sorts so fully as to warrant an opinion on their value here.

Bicton pine I still think well of; indeed I think more of it than ever. It is like most other foreign sorts, not so hardy as our native varieties, which have mostly the scarlets for their type, but with a trifling protection, it may be wintered safely anywhere, and bear a good crop of large handsome flesh colored berries, having an agreeable musky aroma.

Cremont Perpetual, which created a sensation some years ago around Paris, proves to be *not* a perpetual as the famous "Crescent Seedling," but we have gathered from it this season a crop of magnificent berries.

Belle Blanche from France, proves to be identical with Bicton Pine.

Triomph de Gand from Belgium, is a large handsome light crimson fruit, of rather indifferent flavor, and bears well.

Duc de Brabant from Belgium, rather large, long conical, bright shining red; flavor musky and agreeable. Very early, well worthy of trial.

Cobi Prolific, (English) shows a wonderful profusion of bloom and sets a fair crop of berries; large, roundish, slightly flattened, dark red, flavor medium.

Trollopes Victoria, promises better than any other English variety ever received here. The plant is hardy, vigorous, and bears a large crop of magnificent fruit, rivalling the British Queen in its best condition; roundish ovate, light shining red, flavor would rank as good. Among fifty sorts this has borne away the palm in appearance. *Ingram's Prince of Wales* from England, *Honneur de Belgique*, and

Compte de Flanders from Belgium, all give sufficient promise to warrant more extensive trial.

I may state here that the season was remarkably favorable for the production of large crops of strawberries, and large fruits. Rainy, cool weather, more English than American; flavor was not so good as usual. I have been told by a gentleman whose word I cannot doubt, that from an acre of land under *Large Early Scarlet*, over one hundred and twenty bushels of fruit were gathered, and sold at an average to the dealers at about ten cents per quart. An accurate count was kept of one hundred bushels; the balance were estimated.

This was not a bad yield. The land, which lies adjoining the pretty little village of Newark, Wayne county, N. Y., is a dry sandy loam, on a sandy subsoil.

REVIEW.

Botany of the Southern States. In two parts. Part I.—Structural and Physiological Botany and Vegetable Products. Part II.—Descriptions of Southern Plants. Arranged on the Natural System. Preceded by a Linnæn and a Dichotomous Analysis. By Prof. John Darby, A. M. New York, Cincinnati and Savannah. 1855.

It is no part of the mission of the *Horticulturist* to enter extensively upon minute Botanical descriptions; but it has a duty to perform by keeping its readers informed regarding the sources of information, and with this view we notice with pleasure the appearance of Professor DARBY'S new and important work. It forms an admirable introduction to Botany; as such it is adapted and intended for the assistance of learners, and may safely and profitably be introduced into schools. Its descriptions and instructions are brief and clear, perhaps the most so of any work that has fallen under our notice, having the advantage, too, of being fully up to the knowledge of the present day on the subjects of which it treats; as an instance we refer to the chapters on Fertilization and Fruiting, which are treated of in a popular manner. Witness the following:

"The constitution of the fruit differs materially in its ripe from what it was in the green state. Water and lignine diminish, and sugar increases. Water diminishes from two to ten per cent. in different kinds; lignine generally in a greater proportion. Sugar increases in Currants from 0.52 to 6.25, it being twelve times the quantity in a ripe from what they possessed in a green state. This the remarkable changes in taste would lead us to suppose without analysis. In many cases we know that sugar is produced at the expense of starch, but no starch can be discovered in those fruits which generate the greatest amount of sugar, such as Currants, Apples, Peaches, &c. That it takes place at the expense of the other proximate principles, aided by water, is certain, since it goes on withont any increase of weight, and even when separated from the parent stock, and also in the process of cooking. It is a well known fact in chemistry, that the action of various vegetable substances on each other, aided by moderate heat, will produce the saccharine principle. The vegetable acids, with gum and mucilage, will produce this effect. These principles are contained in all succulent fruits, tartaric acid, malic acid,

gum, and various other substances peculiar to each fruit. The act of ripening, therefore, is a chemical process, which consists in converting the various unpleasant and injurious principles of the green fruit into the most nourishing and healthy of vegetable products.

Although the above conveys the general principles on which, we believe, the ripening of fruit proceeds, yet in some cases these substances from which we suppose the sugar to be formed increase at the same time; yet we believe that in all cases either the acid or the other principles diminish, and never both increase or remain stationary in the same fruit. If the acid increases, the other principles diminish. If the other principles increase, the acid diminishes.

For these processes to go on, an atmosphere containing oxygen is necessary; showing that this active agent is required in these operations, and performs some necessary office in the conversion of the crude materials of green fruit into the palatable one of the ripe."

The chapter on "Germination" will reward an attentive perusal. We are embarrassed in selecting extracts, so uniformly interesting is the portion of the work which treats of Physiological Botany, but must be indulged with the following:

"The principal food of plants is water and carbonic acid and ammonia, which are received through the roots in a liquid state, and through the leaves in a gaseous form. Besides these various salts enter in a greater or less degree into the composition of vegetables.

To determine the food of plants, it is an important element in the investigation to know of what the plant is composed. This has been determined by various philosophers with great accuracy. The following is the constitution of some of the most common plants, taking 1000 parts of the dry vegetable:

	Carbon.	Hydrogen.	Oxygen.	Nitrogen.	Ashes.
Wheat	455	57	430	35	23
Oats	507	64	367	22	40
Peas	465	61	401	42	31
Turnips	429	56	422	17	76
Potatoes	441	58	439	12	50

Quite a uniformity will be observed in these elements; about one half being carbon, less than half oxygen; about one-twentieth hydrogen, less than one-twentieth nitrogen, with a much greater variation in the ashes, which consist mostly of *potash, silex, lime, sulphur, prosphorus*, and some other elements in minute quantities.

The first four elements are called *organic elements*, or *organogens;* the materials of the ashes, *inorganic elements*. The most abundant element is *carbon*, and no organic product exists without it, although either of the others may be absent.

The plant derives its carbon from carbonic acid, CO2. It cannot take up carbon in an uncombined state, as it is solid, and it can obtain it from no other compound of carbon, as no other exists in sufficient quantities. The carbonic acid in the air, the result of respiration of animals, the combustion of wood and coal, and the decay of carbonaceous substances, and that contained in the soil from the action of manure, affords the plant its carbon. It is chiefly derived from the air. Numerous facts prove this position. Originally, before there was any vegetation, there could have been carbonic acid nowhere else. Plants grow in the air and deposit carbon. The growth of plants increases the carbonaceous matter in the soil where they grow. Plants will grow and increase in carbon in distilled water. These well-known facts prove that carbonic acid in the atmosphere supplies most of the carbon to plants."

The following curious table will interest many of the readers of the Horticulturist:

"*Schubler* and *Kohler* have made many interesting observations on odors as well as colors. They found that, of the various colors of flowers, some are more commonly odoriferous than others, and that some colors are more commonly agreeable than others.

Color.	No. of species.	Odoriferous.	Agreeable.	Disagreeable.
White	1193	187	175	12
Yellow	951	75	61	14
Red	923	85	76	9
Blue	594	31	23	7
Violet	307	23	17	6
Green	153	12	10	2
Orange	50	3	1	2
Brown	18	1	0	1

The white most odoriferous and agreeable, the yellow and brown most disagreeable."

We could profitably employ many pages with further extracts, did not imperative demands on our space prevent. The portion of country especially included in this most valuable Flora, which occupies a large portion of Professor DARBY'S laborious work, is from latitude 30° to 35° north, longitude 80° to 90° west from London, including South Carolina, Georgia, Alabama, and parts of North Carolina, Florida, and Mississippi—a section of country of the highest interest to the Botanist. It will answer as a text-book equally for all the Southern States, including as it does four great Botanical regions: the mountainous regions of the north, the coast region on the east, the partially tropical region on the south, and the upland or plane region of the middle portion. In short, no more important manual can be recommended to the lover of information and the seeker after knowledge in this department of natural history.

TWO NEW SPIRÆAS.

BY P. BARRY, ROCHESTER, NEW YORK.

THE following new species have bloomed repeatedly with us this season, and we are therefore encouraged to speak of them as valuable additions to our list of hardy flowering shrubs:

Spiræa Fortunei, or *Callosa*. This was noticed briefly in the last volume of the Horticulturist, page 328, in an extract from the "Gardeners' Chronicle." It is a Chinese species introduced by Mr. Fortune, in habit it resembles the S. bella; the young leaves are reddish, and the flowers are produced in large corymbs, of a rich purplish red, or a blood red, color, quite showy. It has been represented in England as "too apt to form leaves rather than flowers," but it is quite free from this defect here. Our warm July weather seems to suit it, for it blooms in the greatest profusion.

Spiræa Billardi. This is a hybrid variety, between *salicifolia* and *Douglassi*, produced by M. Billard, a nurseryman at *Fontenay aux Roses* in France. It has much the appearance of *Douglassi* in foliage. Its flowers, which are of a bright rose color, are produced in showy panicles, first at the extremities of the branches, and afterwards in the axils of the upper leaves, continuing a long time, perhaps

through most of the summer and autumn, in bloom. Both this and the preceding make handsome little bushes, flowering freely, as do all the Spiræas when quite young.

The cultivation of this genus is so exceedingly simple, that nothing could be said on that point. They are easily propagated from layers made of the young shoots during the summer months.

SPORTS.

BY ALAN W. CORSON, NORRISTOWN, PA.

THERE is in the garden of William Hamill, at Norristown, Montgomery county, Pa., a ring willow tree that has stood there many years; last year it sent out a shoot having all the appearance and habit of the common weeping willow; the shoot is now about one and a half inches in diameter at the largest part, and several feet in length. I had hitherto doubted from the difference in habit and growth that the ring willow was a variety of, or sport from the weeping willow; this seems to me to be conclusive evidence that it is so. This tree will have to be removed shortly, the street is to be widened so as to include the place on which it stands.

I have in my garden an Althæa of many years growth, and large size; the flowers are of the common single purple; it has a branch of about two feet long, probably two or three years growth, that has flowers of the very common kind of single white with red bottoms; the difference in the flowers has not been noticed till this year.

DIOSCOREA JAPONICA, OR JAPAN POTATO.

BY WM. R. PRINCE, FLUSHING, LONG ISLAND.

I HAVE a fine patch of this plant now about four feet high and growing vigorously. The foliage resembles very much the Dioscorea villosa, so common in our low grounds. I can see no reason why it should not be extensively cultivated, as it flourishes without any special care, and seems well suited to our climate.

Chinese White and American White Wistaria, &c.—We have several vigorous plants of the Chinese White, the shoots of which are remarkably strong, but do not expect any bloom until the ensuing spring. They have withstood the last two winters without the least injury. The Snow White variety of the Wistaria frutescens is a very hardy and rapid climber, and regularly blooms twice during the summer. But the most vigorous of all the species and varieties, is the *Floribunda*, the shoots of which will run thirty feet in a season. The flowers are of a pale cerulean hue, borne on very long and profuse racemes, which are produced in great abundance. The common Wistaria frutescens and the Chinese blue flowering, are too well known to describe, but there are others less known, such as the *rosea, violacea, serotina*, &c., of which I will speak in a future communication.

EDITOR'S TABLE.

LETTERS FROM THE EDITOR.—NO. 1.

Red Sulphur Springs, Virginia. August, 1855.

My Dear "Horticulturist."—I little expected when our fortunes were linked together some few weeks ago, that I so soon should have found myself five hundred miles away from your new home, but the medical advisers decided for me, and after preparing nearly as much mental pabulum for you as your appetite seemed to require, I find myself drinking the "Red Sulphur Water" in this delightful mountain region, and feel disposed to have a little chat with you. Your own example of roaming from place to place might excuse my doing likewise, for to tell you a home truth, you have been a little unsettled in your residence yourself! Your education begun on the North River under an able master; it was completed by taking a full "pomological" course at Rochester, and now you have come to Philadelphia to see what can be learned there. I will not conceal from you that there are differences of opinion respecting your career, and that some of your admirers even think you have been *a little* too "pomological," but you are prepared, I know, to meet these differences, and will, probably, like all wilful youths, take your own course after all.

But do you know there are others who would fain *hybridise* you? It is true; I brought with me a letter or two positively advising this; they would make a compound of you between a monthly magazine, a newspaper, and a *Horticulturist*. They wish you, my dear H. to contain matter like Putnam and Harper, and an abstract of the news of the month! What think you of that? Will you cheerfully yield your already crowded space to lengthy biographies, such as Abbott's Napoleon? And would it be agreeable to your habits of mind to retail the entire history of the Kinney expedition, and the controversies about Neil Dow, and the liquor question in general? Would you after so much preparation like to "know nothing?" Have your previous studies qualified you for this? Or would your fastidious taste put up with it? I know what your private opinion is about all this, and perhaps it will be better for your health if I drop the subject.

But touching these removals from place to place, you believe, I know, that the climate of Philadelphia is agreeing with you, and think it likely to be a pleasanter winter, and a more permanent residence than Rochester, because you can delight in your out-door occupations later in the fall and earlier in the spring; though your duty is to tell all about *pinching* the dwarf pears, you see no reason why your own nose should be pinched off every winter in the hyperborean climate so near to Canada as your late residence. This is all very well, and I am rejoiced for you that you have moved into a warmer atmosphere, and among a people that are inclined to make much of you.

But I must ask you a serious question; are you so fond of "moving" that you must repeat the operation? If so, and the habit is a confirmed one, which I am happy to think is not however the case, let me give you a little advice. I am not *entirely* convinced that a "move" now and then, such as you have already made, might not be wholesome and useful, so that if your medical advisers should ever again recommend

such a step, which I believe their good sense will prevent them from doing, I will tell you at once how I think it would be prudent to proceed. By wandering occasionally to new scenes, you may very probably pick up knowledge and information that will tend to your usefulness as a public teacher; you can ascertain all that is known in each city where you reside, and gain an amount of sound education that will make you a phenomenon of the first water in your older age.

I think it might be advisable that you should live a year sometime in Boston. Those eastern sages know a great deal, and they are learning every day something to advance your favorite studies; they are practical people, these Boston and Roxbury cultivators; they will treat you well and give you plenty of pears and apples, however they may be inclined to deny you perry and cider.

Whether six months or a year's residence in the city of New York would form an agreeable or useful variety in your career, I am not now prepared to decide. That city has many enthusiastic lovers of horticulture, who are also your friends, and I have not the least doubt they would give you a warm welcome. Your readers are rapidly increasing there, so that arrangements have been perfected to report more particularly than heretofore, their "sayings and doings."

I think you would perhaps do well after leaving Boston to cross the mountains, give Pittsburg and Cincinnati the benefit of your experience, learn all they know about the raising of grapes and the manufacture of wine, all about the great question of strawberries; and while you are on this excursion it would be proper to tarry a suitable time in Louisville and St. Louis. There is much to interest there.

I now come to the most serious part of your journeyings. I want you, if you *must* ramble, to pass a year at least in California, Oregon, and Washington territory! Don't be alarmed at the journey. It will soon be a safe one, such as you can conveniently make with your "types" about you, though if your issue is regular, you might have to print one number on a stump on the route, or, say at Mormondom, where they have done but little for any good cause as yet. One number at least I want issued from the grove of big trees!! They say the "discoverer" and "describer" of a tree or plant has a right to name it! But you may turn the tables on that *Lobb*-ying fellow, and take the right upon yourself as the first printer under their branches, and as soon as you do this, I know you will change the name to *Washingtonia*, and we will support you in it, be assured!

While in California I want you to make popular descriptions of all their desirable trees and other productions, and tell us what we shall adopt in our eastern plantations. Oregon and Washington, too, require more delineations in your line, and you will doubtless pick up many valuable plants and trees on your journeys there and back, that have never been popularised. Now all this looks truly formidable to you, does it not? If so, let us see whether we cannot jog on together in Philadelphia, and accomplish all this great work by means of our numerous correspondents.

All these things we will talk over together when I get well, and we have a quiet evening over a basket of Pears together. I must leave them now to tell you how I got here, and what sort of a place and people I have found. But I had almost forgotten that it is a favorite scheme with me, for you to live a year under the tropics, to learn all about the vegetation and cultivation; as soon as Cuba is *acquired*, I design a winter cottage there. To Cuba, perhaps, we can go together; if not, it will be easy to consult the Sandwich Islanders, and ascertain if they have any horticultural secrets to communicate.

Our little party of three cheerful invalids, had a world of difficulty to discover from any reliable source the best modern route to the "Virginia Springs." They have hith-

erto been so difficult of access, that I suspect your Rochester acquaintances would much more readily have been persuaded to go to Baden-Baden, among our old enemies the Hessians, than to undertake a journey hitherward that involved so much inquiry and stage riding. Now all this is changed; we arrived here by rail and steamboat, with the exception of thirty-eight miles of staging, with very little fatigue. You at the North are so absorbed with your own sayings and doings, that you scarcely take a thought of the travelling facilities hereaway, except for special purposes. All inquiries proving fruitless, we determined to go on by easy journeys, and enquire as we proceeded; a very good plan, my dear friend, and one that I trust you will always remember. There was a slight idea in some minds that these enterprising Virginians were making a railroad from Richmond to Knoxville, Tennessee, but it was only when we arrived very near to the capital of the State, that we could ascertain positively that it was so far completed as to bring us nearly to this, almost the most distant of the rejuvinating waters of Hygeia. But it does so, and from here we can take stages to the other watering places over tolerably good roads.

The route to Baltimore and Washington you have often travelled, and you must have observed that the planting done near the President's house shows already that what was commenced so scientifically by your founder, is to produce an example of value to the nation. The climate of Washington admits of the cultivation of various beauties, which, in none of your residences, have you enjoyed the full value of; for instance, the Magnolia grandiflora flourishes there and at Richmond in most glorious beauty, shining and sparkling in all its elegance. The Crape Myrtle, Lagertromia, attains the height of fifteen and twenty feet; it was in all its glory. Various other interesting plants and trees, of which I have memoranda for you hereafter, attract the eye of the Northern planter, but I want to ask the authorities at Washington not to cultivate any more great quantities of Abele trees, and to rub off as soon as may be, the worn out whitewash that has been so regularly dashed over the trunks of the ornamental plantations. Even the trees around the capitol have been disfigured with this unnatural substance. Whether the increasing taste for statuary of Italian marble has brought about this love of white columns or no, I leave for your solution, but it would be well for you to lend all your well established authority to abolish a negro custom.

Washington, dull as it is when there are no contracts to give out or offices to let, has its attractions, and the grand republican custom by which we were all enabled to shake the hand of a most affable President, has its advantages in making each feel a little touch of sovereignty; but would you believe me if I were to tell you the truth, that I was entrusted with a verbal despatch *to the Secretary of War!* now here, to the import that every thing was right in his department, and that he might remain and drink these salubrious waters *as long as he pleased!* You might take advantage of this circumstance to become a little newspaperish, as one of your friends proposed to me, and write an "official" article to prove that the war with Spain is not imminent, and that Colonel Kinney's late shipwreck has given the administration a breathing spell! Try it, and thus ascertain how your gardening friends relish politics in your pages.

I doubt much, from appearances on the route, whether you are very popularly known between Washington and Richmond. The soil, to be sure, is not propitious, but I think if your face was sometimes turned hitherward, you would be very usefully employed. A steamboat of respectable pretensions will convey you to Aquia Creek, some fifty miles, leaving at six in the morning, and as you are not subject to fatigue, you can easily reach it by leaving your new home the previous afternoon. They will tell you various periods on the route as to the hour of reaching Richmond, varying from one to five o'clock, and

you will really arrive at two; if it be on a Saturday you must necessarily stay over till Monday at the "American," or the "Exchange;" the former will suit you from its excellent attendance.

On landing in Virginia, you will be struck with the abundance and beauty of the Bignonia radicans, or trumpet flower, which throws up its showy red blossoms from every stem it can find, and even soon entwines the multitudinous wood piles which attest your theory that the railroad is a desperate destroyer of the native trees. As you progress, the growth is Pine, Birch, Tupelo, Oak, Magnolia glauca, and Sassafras; the Holly is rarely seen. Altogether the cultivation wears the appearance of requiring some assistance from such editors as those of Farm Journals.

In Richmond you will see much to admire. The grounds of the Capitol and around the Governor's house are well planted, (though variety has not been sufficiently studied), and have a noble appearance. The Washington monument is only waiting for the weeping figures to be placed around it; and this reminds me of a touching incident on the Potomac, as our boat passed Mount Vernon; we were a silent little company sitting on deck; and as we came opposite the depository of the sacred remains of our greatest benefactor, the bell was tolled, as is its regular custom! Even you might have dropped a silent tear as the thought of the cause accompanied this solemn memento!

The popular street tree in Richmond seems to be the Tulip poplar, and I am inclined to advise you to recommend it, both for its great beauty and freedom from pestiferous insects.

The route from Richmond to the Red Sulphur is now much more easy of accomplishment than formerly: You take the railroad that is to connect Knoxville, Tennessee with tide water two hundred and ten miles to Newbern, Virginia, whence over a desperately bad road this place is reached by a day's ride of only thirty-eight miles.

The Red Sulphur is famed for curing incipient consumption, and I see so many getting better here that I believe it to be true. But my letter is getting too long, and I must defer till next month what I have to say to you on "spring" topics; perhaps you will not object if I bring my letter in my pocket.

Answers to Correspondents.—Ohio Subscriber.—It has been recommended for the rot in grapes to uniformly bury the leaves and the young stems cut off in pruning in shallow trenches four or five inches deep at the roots of the vines, sprinkling with gypsum. Treated in this manner, instances are known where the tendency to rot was stopped. It would appear to stand to reason, rot or no rot, that the trimmings of the vines should be returned to the root for its future support. To change your inferior sorts of grapes for better a good and easy method is to graft them. Cut the old root off, some two inches below the ground by a horizontal cut; choose a gimlet the size of the scion to be inserted and bore several holes two or three inches in depth; insert the scions first removing the loose bark; failure in this mode is rare, and old kinds may be changed in two years, sometimes in one. Be careful to remove all suckers that come up from the old vine.

Duane's Purple.—"Who is in the right as to the origin of Duane's Purple plum, the Horticulturist of June 1855 or volume 1, page 115?" It is believed to be a foreign variety.

R. Peet, Pittsburg.—We shall endeavor to look up the subject you name, but fear it has escaped us.

Many communications received shall be attended to in our next.

A POUND OF COTTON, was manufactured and exhibited at the Crystal Palace into four thousand two hundred hanks of the same number of yards each, making two thousand miles from the single pound! If therefore we multiply the produce of one year or one billion four hundred and eighty million pounds only by four hundred and thirty, the length of thread that a single crop of cotton could make, would be over six hundred billions of miles, or sufficient for a web of stout calico, a yard wide, and containing eighty five threads to the inch that would be more than enough to reach from us to the sun.—*Ewbank.*—"*The World a Workshop.*"

A BELT ROUND THE SUN.—And yet the above is from cotton alone. In the rapidly increasing demand for material for woven fabrics and for machinery to manufacture it, but a few years would be required for our looms to fill an order for webs of double belting, sufficiently long to connect the sun with each of the planets, in the way motion is communicated from the large drum of a factory to a number of smaller ones. We enclose our bodies in artificial cocoons; in winter a lady is enwrapped in a hundred miles of thread, she throws over her shoulders from thirty to fifty in a shawl. A gentleman winds between three and four miles round his neck and uses four more in a pocket handkerchief. At night he throws off his clothing and buries himself like a larva, in four or five hundred miles of convolved filaments.—*Ibid.*

CEMETERIES.—Mr. Philips who dates his letter from Edwards, Miss., says:—A. D. G. of Clinton. N. Y. on "Rural Cemeteries" in a late Horticulturist, gives so much good sense and to my notion evinces so much true taste, that I beg to ask your readers to read over again, and treasure up its principles. I have witnessed so much false taste, that I would like to impress the article on the minds of every citizen in America. To see a marble column, with gilt letters over the grave of a man who was a working man all his life, savors more of ostentation, gingerbread-work than of true taste. The will quoted by A. D. G. should be engraven on every entrance to a cemetery. "A monument should betray no desire to exhibit great costliness, and no endeavor to avoid a reasonable expense." I would as soon propose a monument of loaf sugar surrounded with red, blue, and yellow plumes, as such as are too often erected.

I should propose for instance in South Carolina, to place in memory of her great statesman, as large a block of granite, a native of her hills, as could be conveyed to the spot; it ought to be in Columbia, in front of the State House, without a chisel mark, no carving, no gilding, nothing save an immense block, if possible to convey it, with CALHOUN, deeply engraven thereon, in large letters and filled up with a black cement, so as to give perspicuity to the name. The material would cost nothing, the drawing to the spot might cost largely. Suppose ten thousand dollars. What of it. M. W. PHILIPS.

As an offset to the tawdryness of some memento's, I have seen a plain slab on which was, "OUR SON;" another, "OUR DAUGHTER ——— lies here. Died ——— ———." Such simple memento's are sweeter than carving and gilding. "Sweet Alice is no more — She lies buried here."

THE UNITED STATES AGRICULTURAL SOCIETY.—We would call especial attention to the grand scale of preparations for the approaching show of the United States Agricultural Society at Boston. Under the direction of Mr. WILDER, backed by the liberality of the other merchant princes of Boston, we feel confident that it will surpass any Exhibition that has been yet held.

A grand national exhibition of Stock—Horses, Cattle, Sheep and Swine—open to competition to all the States of the Union, and to the British Provinces, will be held by the United

States Agricultural Society, in the city of Boston, on Tuesday, Wednesday, Thursday and Friday, October 23rd, 24th, 25th, and 26th.

Twenty-thousand dollars have been guaranteed by patriotic gentlemen of Boston and its vicinity to defray the expenses; the city of Boston has generously granted to the Society for present use, a fine public square of fifty acres; and ten thousand dollars will be offered in Premiums in various departments.

The previous Exhibitions of this Society—at Springfield, Mass., in 1853, and at Springfield, Ohio, in 1854—were eminently successful, and no efforts will be spared to make the present Show, combining as it does, the Four Great Departments of Farming Stock, superior to its predecessors.

The Premium List, with the Rules of Exhibition will be forwarded to all who will address the President, or Secretary, at Boston, to that effect.

It is earnestly hoped that all Breeders, and owners of Fine Stock will feel it to be a duty, as it certainly is for their interest, to contribute to the Show.

The List of Entries, Exhibitors and Award of Premiums, and all the proceedings of the Exhibition, will be published in the Journal of the Society, for 1855. Annual members of the Society who desire to receive the Journal, should remember to renew their subscriptions.

WILLIAM S. KING, Secretary. MARSHALL P. WILDER, President.

THE NORTH-WESTERN FRUIT GROWER'S ASSOCIATION.—The Annual Meeting of the North-Western Fruit Grower's Association will be held in Burlington, Iowa, on Tuesday, September 25th, 1855, and will continue in session four days.

This Association, organized for the purpose of facilitating and encouraging the propagation of Fruits and Fruit Trees in the North-Western States of the Union, and composed of Nurserymen and Fruit Growers from these States earnestly solicits the favorable attention of all persons from the North-West, interested in the cause for which they will assemble.

It also respectfully solicits the attendance from all such persons from all portions of the Union, and requests them to furnish the Association with specimens of such fruits as are indigenous to, or are cultivated in their respective localities, with contributions giving the experience of cultivators as to diseases, destructive insects, &c, as may facilitate investigation, and add to the public information on these important topics.

In many portions of the Union the season has proved unusually propitious, and there will be a heavy yield of fruit. In others, frosts early in the season destroyed the hopes of cultivators. Those who have been successful in raising fruits will please forward specimens of their varieties to the Association at this place, to care of E. E. GAY.

Carriage or freight, by express or otherwise, will be paid by the Association.

P. BARRY, ESQ., of Rochester, N. Y., late editor of the Horticulturist, and one of the most extensive and widely known Nurserymen and Fruit raisers in the country, has kindly promised to be present and address the Association, and also to contribute specimens of the fruits of Western New York.

As Burlington is connected with St. Louis and Minnesota by means of the Mississippi river, and with Chicago and the East by Railroad, we indulge the hope that there will be a large attendance of persons interested in Fruit Growing, from all sections of the Union.

THE WINTER &C. IN VIRGINIA.—MY DEAR SIR.—The last winter was remarkable for its unusual severity here, as in other sections of the country, December was an intensely cold month, and there being but little snow upon the ground, the earth froze unusually deep and hard. For several mornings in the month, the mercury stood from 8° to 12° below 0. January was milder, there was more snow. Early in February the cold attained its greatest intensity; on the morning of the sixth of that month, the mercury stood at 15° below 0. It did not rise to zero through the day, a circumstance which I do not remember having before

happened within my observation. At seven o'clock P. M., it was 17° below 0, and on the morning of the seventh, 21° which was the greatest cold in the season at my residence, though on that morning at a few miles distant, it was several degrees colder.

To say nothing of other cold days and weeks, which ordinarily would have caused alarm for fruit and fruit trees, it may well be supposed that our fears in their behalf were reasonably excited. In fact, we gave up our Pear trees which were so bountifully loaded with delicious fruit last year, as a *dead loss*, and with misgivings in regard to our young fruit trees, through fear the sudden and severe frosts of December had destroyed the roots, it really made us nervous.

Spring came on slowly with many fluctuations of temperature, though no very warm days until June. In its developments we found we had been anticipating losses that were not likely to be realized. The wood of the Peach suffered severely, owing perhaps in part to the exhaustion caused by excessive bearing last year, but the healthfulness of the roots, new shoots have been vigorously sent from the main branches, and from present appearances they will be in bearing condition next year. Young peach trees suffered but very little, and are giving a fine luxuriant growth this season. The fruit buds on such were nearly all killed, so we must wait patiently another year before we can feast on peaches of our own growing.

Our next fears were for our beautiful dwarf pears, especially the setting out of 1854. Now we could not find a single twig or bud of these injured in the slightest degree. They bloomed freely and the fruit set abundantly for young trees, and they are making a growth that would lead us to suppose that winter had only been a night of rest to them. Our experience so far is decidedly in favor of growing dwarf trees for pears, and we believe the great want of success in it, wherever it may exist, is owing in the first place to purchasing poor trees from nurserymen who are willing to palm them off, and in the second place, from the careless manner in which too many set their trees, and in the third place, from a want of proper, not extravagant, culture when they are set. We have also realized the fact that trees when raised by responsible nurserymen in Western New York, will succeed as well on the bleak hillsides and in the deep vallies of Berkshire, as those grown at home, or brought from any locality whatever.

In the matter of cherries, the bloom was never better, nor the harvest more abundant than in the present season. The two great objections to their culture, the boys and the birds, we are happy to say, promise ere long to be overcome, by setting trees enough to supply all. Several within our knowledge have set fine rows of trees by the wayside as well as in their gardens, which not only furnish beautiful shade, but a bountiful supply of fruit to the insect devouring songsters that build among their branches. If unruly boys happen to light upon them, we hope they will appreciate the value of good fruit on tasting it, so that they will be induced to "go and do likewise" in planting out, and cease in due time, from luxuriating on the labors of their industrious neighbors. Yours truly, W. Bawn.—Richmond, July 7, 1855.

More about the Big Tree. — The following communication is dated Mogadon, Summit Co., Ohio, July 10, 1855. Editor of the Horticulturist.—I see in the last issue of your work a notice of the "Wellingtonia Gigantea" of California. It is spoken of as a discovery of Mr. William Lobb. Now what entitles a man to the appellation of "Discoverer" I am not prepared to determine. But the trees spoken of are as familiar to many residents of California, as any other tree in that State.

There are many statements of Mr. Lobb, not at all in accordance with facts. He says: "It inhabits a solitary district on the elevated slopes of the Siera Nevada, near the head waters of the Stanislau and San Antonia rivers."

So far as I know from a residence of some time on the western slope of the Sieras, and

inquiries of others — the spot designated is the only one on the Sieras, where they are to be found. But the home of the tree, and where they are to be found in great numbers, is on the western slope of the coast range of the mountains. They are found scattered over an extent of country, for more than two hundred miles north of San Francisco. On Eel river, and the Klamath, they exist in great numbers and much larger than those described by Mr. Lobb, on the Stanislaû. They are found there thirty feet in diameter. A company of men cut one down (a small one), for a bridge; it was fallen across an impassable stream. It formed a bridge on which three mules packed could cross abreast, and was of sufficient width for a wagon bridge. The Indians frequently cut into them through the sap, and by burning excavate a hole large enough for a large family. A gentleman in whose word I have the most implicit confidence, said a party of seven men slept in one and that he turned a pole fifteen feet around in the hollow as high as his head horizontally, and this was one of the smallest sized trees. But sir, I will not tell what I have the best reason to believe, and know to be the truth about the size of some of these monarchs of the forest. The great object of my writing, is to enter a remonstrance to the name given by the "John Bull" whom you recognize as the discoverer. The tree has been for two years known by the name you suggest "Washingtonia Gigantea," in California. A year since, a computation of the amount of inch lumber in the largest tree that Lobb described, was made by a Yankee, and that was the name then given.

I protest against the alteration by any admirer of the "Iron Duke" or any other foreigner. Yours respectfully, M. Jewett.

American Association for the Advancement of Science.—The meeting of this Association will be held this year at Providence, Rhode Island, commencing on the 16th of August. This is a most important institution—a yearly reunion of our most distinguished professors in every branch of science. The papers read at the previous meetings have been highly creditable to the nation, and a great deal of scientific information has been freely dispensed. It appears by the circular before us that the funds of the society are nearly exhausted, and that there is not money enough in the treasury, unless arrears are paid up, to meet the expenses of another year. We trust that so valuable a society will not be allowed to die out for the want of a few hundred dollars.

Hartley Coleridge once being asked which of Wordsworth productions he considered the prettiest very promptly replied, "His daughter Dora."

Epipogon Gmelini.—Our practical Botanists should keep a good look out for novelties in their respective districts. In the immediate neighborhood of the longest settled localities much of value to science may be discovered. Even in *little* and densely populated England, which one would think explored to every square inch of its surface, new plants are occasionally met with. The above plant, a pretty little orchid, supposed heretofore to be indigenous to the continent of Europe only, has recently been discovered there by a lady botanist. P.

Amelanchier Botryapium.—It is much to be regretted that this very beautiful shrub or small tree should be so seldom seen in our ornamental plantations. As the "Snowy Mespilus" it figures largely in the catalogues we receive from European nurserymen; but the writer has not met with it yet in one of our own. Passing the garden of an old Dutch farmer this spring, before the last March wind had scarcely finished blowing I much enjoyed the sight of a splendid specimen thirty or forty feet high, its flowers forming a complete "shower of snow." I saw the same bush again in the end of June. Then it was as thickly studded with brilliant red berries, as it had been with flowers before, and the myriads of those happy adjuncts to a "garden life"—the birds—showed that they at least knew how to appreciate the tree by the merry twitter they kept up in and around it. P.

A New Weed.—Our agriculturists should be on the look out for a new candidate for their spite and ill will. It is a native of Peru, and probably Mexico, but begins to be pretty often met with in the neighborhood of large towns. About the Woodlands Cemetery near Philadelphia, it is tolerably abundant. It is a composite plant, or of the same natural order as the Rag weed, (*Ambrosia artimesiæfolia*) named by Botanists, *Galinzogoa parviflora*, and is an annual. It seeds when very small, yet grows one or two feet in height, and seems to be quite at home in our climate. The leaves are ovate and very hairy, and the flowers with a yellow disk, and five broad, but short white rays. It will reproduce hundreds of plants in a few weeks if left to seed; but fortunately it is annual, and has no other mode of reproduction. Moreover the least frost entirely destroys them for the season. P.

Hedge Plant.—Mr. Editor:—Now that some attention is being paid to the subject of good hedge plants, I would beg to suggest for trial by those experimenting, a native, which seems to have all the qualities of a good hedge plant, namely: *"*Zanthoxylum Americana"* (prickly ash.) This plant has quite a shrubby habit and cattle do not browse on it, at least so far as I have observed, nor do I think it throws up any suckers. What do those say who have observed its habits in different localities? G.—*Galt, Canada West, August* 11, 1855.

The Usefulness of Birds.—The New Haven Palladium has the following striking article:

It takes mankind a great while to learn the ways of Providence, and to understand that things are better contrived for him than he can contrive them himself. Of late the people are beginning to learn that they have mistaken the character of most of the little birds, and have not understood the object of the Almighty in creating them. They are looked upon as the friends, and very great friends, of those who sow and reap. It has been seen that they live mostly on insects, which are among the worst enemies of the agriculturist, and that, if they take now and then a grain of wheat, they levy but a small tax for the immense services rendered. In this altered state of things Legislatures are passing laws for the protection of little birds and increasing the penalties to be enforced upon the bird killers. An illustration of the value of some of the winged tribe is now before us in a paragraph from a paper in Binghampton, (New York.) A farmer in that vicinity wished to borrow a gun of a neighbor for the purpose of killing some yellow birds in his fields of wheat eating up the grain. His neighbor declined to loan the gun, for he thought the birds useful. In order, however, to gratify his curiosity, he shot one of them, opened its crop, and found in it two hundred *weevils* and but four grains of wheat; and in these four grains the weevil had burrowed! This was a most instructive lesson, and worth the life of the poor bird, valuable as it was. This bird is said to resemble the canary and to sing finely. One of our citizens, a careful observer and owner of many farms, called our attention to this paragraph, and wished us to use it as a text for sermonizing, for the benefit of the farmers and others who may look upon little birds as inimical to their interests. He says he has studied this subject as a lover of natural history, as well as a hunter and a farmer, and he knows that there is hardly a bird that flies that is not a friend of the farmer and the gardener. We think the gentleman is right, and hope his suggestions will have their due weight.

The Caper.—We make the following extract of a letter from a correspondent of the Patent Office, dated Washita parish, Louisiana, giving a short account of the culture of this product in Louisiana.—*Washington Union.*

"Among other valuable plants of Europe which I have attempted to introduce into this State is the caper, (*capparis spinosa.*) From some roots which I obtained from Marseilles, I raised two crops of buds (capers) equal to any I had ever seen in Italy. I lost the plants by

*See Nuttal's North American Sylva, vol. 3.

frost, being absent during the winter, when proper care should have been taken to cover the roots with earth. I would remark, that three years ago I received some caper seed from Naples, which did not germinate, owing, as I think, to packing them in air tight vessels."

THE LUXUMBOURG ORANGE TREES.—The pomegranate and orange trees of the Gardens of the Luxembourg are at present being transferred into new cases of larger size. The collection of orange trees belonging to the Luxembourg is one of the most remarkable of any of the public gardens in France, both the number and age of the trees. Orange trees, it is known, attain a vast age. In the famous orangery at Versailles, is one known under the three names of Grand Constable, Francois I., and Grand Bourbon, which is more than four hundred years old. It comes from some pippins of a tree of bitter oranges planted in a pot at the commencement of the fifteenth century, by Eleanora of Castile, wife of Charles the Third, King of Navarre. The trees which sprang from them were preserved in the same case up to 1499, at Pampeluna; they afterwards passed into different hands as rare and precious objects, and then became the property of the Constable of Bourbon, who placed them in his Chateau de Chantelle in the Bourbonnais. The property of the Constable having been confiscated in 1522, the orange trees were sent to decorate the palace of Fontainbleau, which Francis I. had caused to be restored and enlarged. When Louis XIV. had completed Versailles, and built that magnificent orangery, he gave orders that all the orange trees existing in the royal residences should be conveyed to it. This was in 1684, and the orange trees of Pampeluna, which were among those removed, were then two centuries and a half old. The Grand Constable, notwithstanding its great age, is still perfectly vigorous. BERTIER.

A CORRECTION.—In my notes on Cincinnati, I find that I omitted to make mention of several places which I visited, and this, especially in the case of nurserymen, may very justly be considered uncourteous if not unfair.

MR. BATEHAM and myself, had a very pleasant ride to the nurseries of Messrs. J. C. FERRIS & Co., at Pleasant Ridge, a little village in Hamilton county, some six or seven miles distant from Cincinnati. Mr. FERRIS has a commodious range of plant houses in which he grows roses and soft wooded plants extensively. We observed around the house quite a large stock of roses recently turned out. He is also extending his culture of fruit and hardy ornamental trees rapidly, and has already a good stock of many things ready for sale. The country around Pleasant Ridge is the fairest and most fertile I have seen in Ohio, and the prospect, which embraces many miles on all sides, was charming at the time of my visit. The woods, fields, and gardens, were all decked in their freshest and gayest attire, the weather was showery, and the atmosphere fresh and invigorating.

The nursery of J. M. MCCULLOUGH, ESQ., who has a seed establishment in the city of Cincinnati, is not far from Pleasant Ridge, and we intended to visit them on our way back to town, but it threatened rain and the afternoon being somewhat advanced, we deferred it. Saturday I intended to complete my visit among the nurserymen, and also among the more extensive strawberry growers, but when I got up in the morning the rain was falling thickly, with a prospect of continuing all day, and so I took my seat in the cars and was home at midnight. I regretted leaving so much undone, but there's a good time coming. To see all that is worth seeing in the way of nurseries, gardens, vineyards, &c., around Cincinnati, would require a full week, and the weeks that I can spare away from home are "few and far between." B.

CORRECTION.—In describing the Howell Pear I am made to say "The point is large" instead of "The fruit is large." See page 350 Aug. No.

In speaking of the *Pyrus Japonica*, you say "This beautiful plant grows very readily from cuttings," you ought to have added "of the roots" lest some people might experiment on the shoots, which would be labor lost. B.

PENNSYLVANIA STATE FAIR.—The premium list for this fair, to be held at Harrisburg in the fall, offers cash premiums amounting to $5,059, ranging from $100 down to $1. There are also embraced in the list thirty-one silver cups and goblets, eighty-three silver medals, and a number of bronze medals.

COL. WILDER has been making another excellent speech at the celebration at Dorchester. There can be no possible objection to this, but it would be very agreeable to his friends, if he would put pen to paper more frequently *also* on the subject he is so capable of enlightning us upon—Horticulture.

LIGHTNING.—M. Baudin, of the French Academy of Sciences, mentions some dozen instances in which the figures of trees, flowers, leaves, and other objects have been imprinted on the human body by lightning strokes. The phenomenon seems to bear some resemblance to photography.

TREES AT THE SIDE OF RAILWAYS.—The Austrian government requests the directors of the railways in the Empire to plant young trees, of a description indicated, at convenient distances along the lines, intending them eventually to replace the posts upon which telegraphic wires are at present affixed. If this plan should be adopted in the United States, a graceful tree would take the place and perform the service of the unsightly poles which are to be seen along our railways and public roads.

THE RHODE ISLAND HORTICULTURAL SOCIETY has published in a very handsome form, its charter, constitution and by-laws, and seems to be altogether in a prosperous way.

A YANKEE BOY.—A few days since three boys in Norfolk, Ct., discovered a swarm of bees settled upon a low bush. One of them immediately disrobed, and taking his shirt, tied up the neck and arms, and then slipped it over the swarm, and in this manner succeeded in securing and hiving it.

THE AMERICAN INSTITUTE.—The Directors of the American Institute announce that their twenty-seventh annual exhibition will be held at the Crystal Palace, opening on the 3d of October. Should this affair result favorably, it may result in the purchase of the palace for the use of the association; but the place is in such bad odor that the experiment of the Institute is one of doubtful results.

SHORT HORNS.—We have not received the catalogue of "Short Horned Cattle" from Elizabethtown N. J. alluded to in a note from R. T. Haines, the father of the proprietors *J. D. H. Toronto.* The paper alluded to has not yet reached us, much to our regret.

PROFESSOR AGASSIZ, proposes to publish the most important results of his scientific labors in twelve volumes with plates, by subscription. The price will be ten dollars each volume. Large subscriptions have been made in Boston and New Bedford. Little & Brown of Boston are to be the publishers. We wish the undertaking every success.

THE WHOLESALE CATALOGUE of Ellwanger and Barry for the present autumn is on our table, and contains the usual and extensive variety of that enterprising firm. Their fruit trees are justly celebrated.

CORN.—A correspondent asks if we believe the story of a stalk of corn having grown ten and a half inches in twenty-four hours. Yes; in the Winchester Republican.

Horticultural Societies.

PENNSYLVANIA HORTICULTURAL SOCIETY.—The August meeting of this Society afforded few objects of special interest,—when we say that on the whole it was an improvement on the usual August exhibitions, we say a great deal in its favor. A very fine and well bloomed specimen of *Begonia xanthina*, however attracted much attention from its peculiar color. This is a stove species of the sub herbaceous class, throwing up scapes of pale yellow flowers. *Clerodendron Kæmpferi*, of which there were several very fine specimens, though very like others known as *fallax*, *specioissima*, &c., is probably the best of them all, and a very showy stove plant.

In the class of new or rare plants we noticed *yriesia splendens*, a plant of the Pine apple family, with black variegated leaves, and a flattened scape of purplish flowers about one foot high. *Pandanus javanicus fol. var.* was exhibited for its foliage, which is variegated in a manner similar to the well known Ribbon grass. An orchid, *Phaijus albus*, though exhibited before, is seldom seen here; it has pure white flowers, but does not seem so abundant a bloomer as the other well known species. There were other orchids exhibited, amongst which one marked *Stanhopea crispa*, probably a variety only of *S. Wardii*, with six expanded flowers suspended from a block, was the most interesting.

On the fruit tables there appeared amongst the very fine things exhibited, nothing new or calling for special remark. The "*Orange Water Melon*," with a very thin rind, which it is said will peel off like an orange, was shown, the fruit being about half the ordinary size of water melons. Amongst the Pears, the *Beurre Giffard*, *Julienne*, and *Bloodgood*, were among the best exhibited.

PENNSYLVANIA HORTICULTURAL SOCIETY.—The stated meeting of this Society was held in Concert Hall, Philadelphia, August 21, 1855.—The President in the chair.

Premiums awarded on this occasion were, by the Committee on Plants and Flowers—Collection of twelve plants—for the best to John Pollock, gardener to James Dundas; for the second best to Thomas Robertson, gardener to B. A. Fahnestock. Collection of six plants—for the best to J. J. Habermehl, gardener to John Lambert. *Specimen* plant—for the best to John Pollock, gardener to James Dundas; for the second best to Thomas Robertson, gardener to B. A. Fahnestock. Indigenous display—one dollar to Alexander Parker. *New plants*—a premium of five dollars to Jerome Graff, gardener to C. Cope, for *Stanhopea crispa* and *Phajus albus*. Basket—for the best to J. J. Habermehl, gardener to John Lambert; for the second best, to Jerome Graff, gardener to Caleb Cope: of indigenous flowers—for the best to Thomas Meehan. Bouquets—for the best pair to Jerome Graff, gardener to C. Cope; for the second best to J. J. Habermehl, gardener to John Lambert. Special premiums of three dollars for a collection of German asters, Fuchsia cut Balsams, &c., two dollars for a large Bouquet and cut German Asters, to H. A. Dreer.

By the Committee on Fruits—Grapes:—for the best three bunches of a black variety, to Mark Hill, gardener to M. W. Baldwin: for the best of a white variety, to John Riley,

gardener at the Insane Asylum. Nectarines—for the best the Downton, and for the second best, Elruge, to Wm. Hamill, gardener to C. Henry Fisher. Plums for the best twenty-four specimens six varieties, to John McLaughlin, gardener to I. B. Baxter: for the second best to John Chambers, of Mount Holly, N. J. Peaches—for the best twenty-four specimens, to Wm. Hamill, gardener to C. Henry Fisher. Pears—for the best collection of twenty of three varieties, to John McLaughlin, gardener to I. B. Baxter: for the second best to Mrs. Mackan. Apples—for the best collection thirty specimens three varieties, to John Chambers; for the second best to Saml. Noble, of Montgomery county. Special premium of one dollar for a dish of very fine Washington Plums to A. C. Michener. Specimens of the Orange and Tatooed Water Melons were shown but not fully ripe.

By the Committee on Vegetables—Display—for the best by a market gardener to A. L. Felton. And a special premium of two dollars for a display to J. J. Habermehl, gardener to John Lambert.

Members elected—A. B. Justice, and John G. Craig.

OBJECTS EXHIBITED—*Plants*—By John Pollock, gardener to James Dundas—Allamanda aubletia, Stigmatophyllum ciliatum, Clerodendron Devonii, Achimenes longiflora alb., Vinca rosea, V. alba,, Begonia semperflorens, B. parviflora, Angelonia gardneriana, Pentas carnea, Adamia versicolor, and Cuphea platycentra. Specimens—Allamanda nereifolia, and Clerodendron Kaempferi.

By Thomas Robertson, gardener to B. A. Fahnestock, collection of twelve—Allamanda cathartica, Clerodendron squamatum, Russelia juncea, Fuchsia Prince Arthur, Angelonia gardneriana Cryptolepis longiflora, Achimenes grandiflora, Begonia xanthina, Cuphea platycentra, Pentas carnea, Neirembergia grandiflora, and Mahernia Diana. Specimen—Clorodendrno Kæmpferi. *New plants*—Vriesia splendens and Pandanas javanicus fol. var.

By J. J. Habermehl, gardener to J. Lambert—Collection of six—Plumbago Larpentæ, Ixora rosea, Russelia juncea, Achimenes grandiflora, Begonia alba, pots of German Asters, and cut plants of Balsams and Celosias.

By Jerome Graff, gardener to C. Cope—*New* plants—Stanhopea crispa and Phajus albus; Gongora atropurpurea, and Oncidium Harrisonii.

By Robert Buist—Cut specimen of Poinceana Gilesii, a beautiful half hardy shrub, blooms from July to frost.

By Alexander Parker—A few indigenous plants.

By H. A. Dreer—Cut flowers of German Asters and Scabiosa.

Designs, Baskets and Bouquets.—By J. J. Habermehl, gardener to John Lambert—Basket and a pair of hand Bouquets. By Jerome Graff, gardener to C. Cope—a basket and two hand Bouquets. By H. A. Dreer—A table design and pair of Bouquets. By James Kent, gardener to J. F. Knorr—Bouquets, not in competition. By A. L. Felton—Bouquets. By Thomas Meehan—Basket of native flowers.

Fruit—By Mark Hill, gardener to M. W. Baldwin—Grapes, three bunches Black Prince and three of White Frontignac.

By John Riley—Grapes—White Frontignac and Hamburg.

By Isaac B. Baxter—Plums—Royal Hative, Reine Claude, Apricot, Schuylkill and Seedlings; Pears—Bloodgood, Giffard, and Julienne, also Washington, Bartlett, Golden B. of Bilboa, &c.

By Wm. Hamill, gardener to C. Henry Fisher—Nectarines the Downton, Elruge, and another kind, and Peaches.

By John Chambers, of Mount Holly—Plums—eight varieties—Apples—Red Juneating, Maiden's Blush, Summer Pearmain, and other varieties—Pears—six or eight kinds.

By Mrs. Mackau—Pears and Plums, a number of varieties of each.

By Samuel Noble, of Montgomery county—Apples and Pears.

By Geo. W. Earl—Plums, Green Gages, Washington and blue magnum bonum, and Julienne Pears.

By A. C. Michener—Plums, Washington very fine.

By Alexander Parker—Peaches and Plums.

By A. L. Felton—Isabella grapes, open culture.

By Henry Hay—Water Melons, orange and tatooed.

Vegetables—By A. L. Felton, a fine display.

By J. J. Habermehl, gardener to John Lambert. a small display.

Ohio State Pomological Society.—*To Fruit Growers and Nurserymen.*—As it is expected that there will be a large display of fruits at the coming Ohio State Fair, and many fruit growers and nurserymen will be present on that occasion, it has been thought best to hold a meeting of the *State Pomological Society* at Columbus, at the time of the Fair. This meeting will commence on Tuesday evening, September 18th, and it is desired that members of the Society and other fruit growers wishing to participate in the deliberations, should be present with specimens of their fruits, especially peaches and pears, and such other fruits as have not been fully examined and discussed at former meetings of the Society.

Persons who may have new and rare specimens of fruit, which they wish to have examined and reported on by the Society, and who may be unable to attend themselves, can send specimens with a written statement of the names, history, &c., to the care of M. B. Bateham, *Ohio Cultivator Office, Columbus.* It is expected that permission will be granted the Society to take specimens of any new and rare varieties of fruit that may be wanted for examination from the tables at the State Fair,—and persons who intend exhibiting such fruits at the Fair, will do well to add a few specimens for this purpose. A. H. Ernst, President. A. B. Buttles, Secretary. M. B. Bateham, Treasurer.

Chester County Horticultural Society.—*August 11th*, 1855.—The stated meeting for this month was held in the Society's Hall at the usual hour. Vice President, J. H. Bull, Esq., in the chair.

The display of specimens was very fine, both in quantity and quality. The shows of Achimines, Gloxinias, &c., were very creditable to the growers, and the collections of greenhouse plants from the different nurseries were unusually fine.

The display of fruit was poor, with the exception of the several fine plates of Pears and Apples deposited by J. K. Eshleman, M. D.

UNIV. OF MICH.

RED ASTRACHAN.

Expression of Purpose.

LANDSCAPE Gardeners and Architects sometimes use a phrase that has much meaning. "Expression of Purpose" has a significance in many cases which no other simple phrase conveys. The builder who erects a mansion having a few little port-holes for third story windows, expresses a determined purpose of making a hot chamber for those who may have to sleep in the attic; the gardener who omits to mow his lawn at the proper time, says to the spectator, either that he is careless, or that his purposed neatness has been interfered with; and so through the whole catalogue of building, planting, and garden or farm work. The commercial gardener who is a beginner, and with his capital to make, if he erects a grapery or a rosary of a height that is too small for ornament, or with inferior or second-hand materials, until he can do better, violates none of the proprieties; his purpose is fully expressed, and we are not pained to consider how ornamental a few hundred dollars more might have made his project.

Violations of the proper expression of purpose are so common that we are only puzzled to keep down our illustrations. They result too often from ignorance, and rom a want of observation when good examples are before us. We have lately seen an attempt to conceal a kitchen which has a frontage on a parallel with the mansion, by planting the Weymouth pine in front of each window, trees which notoriously produce but partially the desired screen, and are almost certain to lose their lower limbs; hemlocks regularly sheared twice a year, would have a different and happier result. The stable, again, is too often at a distance from the kitchen garden; the manure for enriching the crops is placed inconveniently, from the time employed in transporting it; the kitchen garden is often removed far from the dwelling, and the fruit has to be carried to such a distance that it is injured, and when it is growing it is not under the eye of the master; the purposed object of having fine fruit *when it is wanted*, or a spear or two of celery for the soup, *in a hurry*, is defeated. We pardon the nearness of the kitchen garden to the house, because the purpose is expressed, at the same time that the full exposure of the manure heap to the windows is entirely needless; the processes may nearly all be concealed, while the object is fully attained; the growing fruit interspersed among the vegetables, will take off, to the cultivated eye, anything like disgust; the stables within reach in stormy weather also express the care which the inmates of the house exercise over their useful animals.

Again, a distinction must be made between the words *ornament* and *decoration*. "The former should include," says a judicious critic, "every enrichment bearing *the semblance* of utility; the latter is supposed to have no relation whatever to the uses or construction of the building; thus, for instance, a house may answer all the purposes of habitation without a column, a pilaster, an entablature, a pediment, a

dome, an arcade, or a balustrade, which I call the external *ornaments* of Grecian architecture. I include under the word *decorations*—statues, vases, basso-relievos, sculpture, &c., which have no use, but as additional enrichments to the ornaments of architecture; on the contrary, where these *decorations* are applied to plain buildings without *ornaments*, thay are marks of bad taste."

Overloading a small garden with buildings, fountains, and statuary (*statutes* at large, as a legal friend calls the latter), expresses a purpose of getting more delight from the garden, and of a kind that it is too well known it does not often afford, especially when they are *displayed* with the utmost effort. A quiet seat in a secluded nook, sheltered from the sun and rain, with a book-shelf partially filled, and surmounted by a modest bust of Thomson or Milton, expresses a purpose that no one can mistake, and if the seat commands a view of interest—as of a busy city, at the time when its toiling thousands are making up their bank payments, or the sailor is unfurling his artificial wings for a distant clime, everything is combined to make one hug his solitude, and to entice us to useful retirement and contemplation. Place the same building in a conspicuous walk, frequented by every transient passer, in a glaring sun, and looking upon an unsightly object, and the entire solace of agreeable associations is lost, even though the same poets court your attention.

A double row of evergreens placed so as to keep off the northern blast, and feathered to the ground, forms, on the southern side, a winter's walk, genial to the mind as well as the body, where one can stroll defiant of nature's gusts, with the feeling of admiration for the mind that planned and the hand that directed so purposed and excellent a result. Visit this man's neighbor, who has not assisted nature to come to his aid, and you find his family complaining of the bitter cold, afraid to venture abroad least they lose their hats or their tempers, deprived of wholesome air and exercise, without animation and devoid of purpose.

In the interior of a dwelling the same expressions strike you or not in proportion as forethought and refinement have planned and executed. Well-assorted colors in furniture, hangings and carpets, are not combined without study aided by taste; how often do we see green, purple, and orange colours congregated, without their owner being aware that they are almost annihilated by mixture, and much improved by contiguity with red, yellow, and blue colors respectively. The most expensively furnished room may be utterly valueless and even painful to the eye of taste where well-known rules in this respect are violated. The dining room should not be hung with pictures calling forth melancholy associations, but rather with portraits of game and sporting scenes; venison is a more agreeable thought at dinner than the head of "St. John the Baptist in a charger," borne by an awkward damsel in a short apron. The very paper on the walls should have its expression, and the light should be admitted so as to cast cheerfulness over the guests; these are not such entirely artificial feelings and results, but that they may be introduced more or less into the humblest cottage where the owner thinks it due to his wife and children to sit down to dine with clean hands and his coat on his back.

The dining room naturally suggests the connection that exists between it and the kitchen; where the latter is buried under ground, as we too often see in Country

houses, the naked, solitary appearance of the house is unrelieved. Few things give importance and consequence, and even variety to a mansion as the accompaniment or *attendance* of the inferior parts in their different gradations. Even the stables may be made to contribute to the beauty of the whole scene, and to raise, not degrade, the principal part. The "cellar kitchen" in the country is only tolerable where the house is situated on a declivity; the expression of purpose is here palpable and even agreeable, as we know at once the object, and do not feel that the inmates are troubled with the dampness which more or less accompanies all underground rooms, and is so needless where space is abundant in the country. A terraced garden on a steep declivity has the expression we are enforcing, in the same degree as a covered walk from the house to the conservatory; or a covered porch for the carriage to drive under at the door; they may even be somewhat out of keeping with the architecture of the place, but the expression of purpose satisfies the mind; the *utility* is at once apparent. An ambitious tower, *too high for the mansion*, has evidently a purpose, but we never see one without reflecting on the toils of the resident, and of how very soon his ascending steps to obtain the view, give way to ennui and fatigue; a view to be thoroughly enjoyed must be within reach without fatigue; indeed, should present itself when the enjoyment of repose after needful toil inclines to rest and contemplation. A high tower, after a certain number of ascents, is apt to be only a part of the exterior aspect of the mansion and is then left to its own enjoyment. The purpose was a cherished one to the builder; the view is *exhibited* to visitors, and then forgotten; whereas if it occurred in a stroll through the grounds, or was the accompaniment of a bower in the garden, it would be a perpetual source of delight. We have known a site selected purely because a great city could be seen from the roof, and the owner has confessed that he *goes up* on an average but once a year.

THE RED ASTRACHAN APPLE.*

AMONG the most beautiful of Apples are a few varieties which it is said are of Russian origin.

These are the *Red Astrachan*, *Duchess of Oldenburg*, *Borovitsky*, *Alexander* or *Emperor Alexander*, and *Tetofsky*, all summer apples.

None of these can be classed as first rate table apples, but their great beauty, vigorous habit and early and great productiveness, render them well worthy of attention.

The *Red Astrachan* is by far the most popular of them all, and the most widely disseminated, indeed we believe it stands next to the Early Harvest. It has proved successful through all the Northern, Middle, and Western States. The tree is sound and vigorous, with stout dark shoots, and broad dark green foliage; no apple tree can be more ornamental. It succeeds particularly well on the Paradise stock, making a large, luxuriant and prolific bush. We have seen specimens this season

* See Frontispiece.

grown on dwarf trees twelve inches in circumference—and all covered with the richest crimson without a single spot or defect of any kind whatever.

It is almost too acid, yet many people relish its sprightliness, and in the market it carries all before it, commanding twice as much as any other variety of its season.

We add Mr. DOWNING'S excellent description:—

A fruit of extraordinary beauty, first imported into England with the White Astrachan, from Sweden, in 1816. It bears abundantly, and its singular richness of colour is heightened by an exquisite bloom on the surface of the fruit, like that of a plum. It is one of the handsomest dessert fruits, and its quality is good, but if not taken from the tree as soon as ripe, it is liable to become mealy. Ripens from the last of July to the middle of August.

Fruit pretty large, rather above the middle size, and very smooth and fair, roundish, a little narrowed towards the eye. Skin almost entirely covered with deep crimson, with sometimes a little greenish yellow in the shade, and occasionally a little russet near the stalk, and covered with a pale white bloom. Stalk rather short and deeply inserted. Calyx let in a slight basis, which is sometimes a little irregular. Flesh quite white, crisp, moderately juicy, with an agreeable, rich acid flavour.

TRANSPORTATION OF FRUIT TREES.

BY WILLIAM STOMS, CINCINNATI, OHIO.

THE time is near at hand when orders will go forward for Fruit and Ornamental Trees, for fall planting, and fall sales. And as this is a subject so little treated upon by Horticultural writers, and one at the same time so pregnant with vexation, tribulation and loss, on the part of both vender and purchaser, I will venture a few remarks on the subject, in hopes to contribute something towards arresting attention in the right quarter, tending to a correction of a great, and, I may say, growing evil, on account of the continued delinquencies on the part of transportation Agents.

The many abuses heretofore suffered, call aloud for some corrective—and I know of no better way than to keep the matter *constantly before the public.* In this way the hardened transgressor may be induced to "chime in," on the same principle of the Irish girl who married her persistent suitor, *to get clear of him.* Perhaps, however, after the subject is once opened up, some one of your numerous readers may be able to suggest a remedy more effective than the following:—

It is well known, I presume, to every dealer in Fruit and Ornamental Trees, that Railroad, and other transportation Agents, are in the habit of putting aside bundles of Fruit Trees, because of a little inconvenience in hauling, whilst flour, whiskey, and many other articles not perishable, are sent along with accelerated speed.

With folded arms they seem to stand by and witness the *perishable* cargo of Fruit Trees, dry up on a sunny wharf or heated warehouse, until the very life is dried out of them.—That this has been a most shameful and inexcusable abuse, hundreds of

sorrowing and disappointed hearts can truly testify. On our Western Waters most especially, do our steamboat officers and crew seem to have as little judgment about the transportation of Trees, as a New Zealander has of logic chopping. It is not unfrequently the case that I have observed a lot of most delicate Plants and Flowers, placed in close proximity to the steam boiler, with a long destination, but of course a very short life. The officers seem to have very little conception of the value of their cargo, or the design of its owner. It makes no differance whether the invoice is for one dollar or one thousand dollars. "All are served alike." To deliver the boxes unbroken, or the Trees with "the bark on," is the top of their ambition.

Among the several cases of neglect on one hand, and disappointment on the other, that now repose on the memory, permit me to state the following, which may suffice to demonstrate, or show up the bad system as heretofore practised.

Some three years ago, a friend of ours ordered an invoice of Fruit Trees and Roses, from Ellwanger and Barry, of Rochester, New York. It was Spring, and being a dealer, the Trees were designed for spring sales. The invoice amounting to some hundreds of dollars, came to hand by due course of mail, with advices that "the Trees, &c., were shipped, via. Buffalo and Cleveland to Cincinnati."

Our friend immediately began to take orders, and it was not long before all his invoice was disposed of. But time, which is the arbiter of every man's fate, passed on, and no Trees came to alleviate our friends sufferings. His customers called repeatedly. The trees were expected "every hour," but like Hotspur "calling spirits from the vasty deep," they "did not come." Spring was putting on her robe of green—Roses were preparing to show their bloom—our friends patience was quite exhausted—his customers withdrew their orders, in great disappointment to him as well as themselves. As a last resort, application was made to the rail road agents in Cincinnati to assist him in getting out of a dire dilemma—their good offices were promised—the Telegraph was put into requisition, when return was made by the agent in Cleveland that "the trees had not arrived." Sick at heart, our friend gave up all as lost and abandoned the cargo to its fate. In this nervous repose, however, he was not long permitted to remain. It was on a steaming hot afternoon, when a compassionate gentleman stepped into the store of our friend, and informed him that he was a resident of Cleveland—and that he had observed, for the past two weeks, lying on the dock at that port, a lot of Fruit Trees marked to his address! The sun, most of this time, he represented as having shone out, each day, unusually hot, and by that time he supposed the trees must be ruined! And ruined, sure enough, they were. The efforts of our friend to save them cost him more than they were worth. Now we imagine the reader will say—"Why not make the transportation line pay damages?" Well, this is just what our friend thought about, and talked about, until he became so bewildered, as to give the whole matter up in despair. Like Macbeth with Banquo's ghost, each *line* would exclaim, "*thou canst not say I did it*"—and so, to have danced out a suit in litigation, he would have had to commence, I presume, at each end of the *lines* and closed up in the middle. Or like *Pat*, who, when asked how he had taken prisoners such a company of men, exclaimed, "*faith an' I surrounded them!*"

Numerous instances of similar import to the above have come under our observation—but this will answer, at present, to demonstrate the principle of neglect and, in some cases, utter recklessness on the part of transportation agents. Something should be done whereby the responsibility cannot be shifted with impunity from one line on to another. For it is plain to be seen that to trace out the defalcation—prosecute and carry on a suit in law, some hundreds of miles distant from home, is no easy task, and in the end is attended with more expense, in many instances, than the amount at issue is worth.

Very often blame is laid at the door of Nurserymen for bad packing, when it should attach to Carriers—and I have no doubt that this class of citizens lose annually large amounts in having to duplicate orders without remuneration. The two leading causes of complaint towards common carriers, are,—first, wilful *detention* on the part of rail roads; and second, bad *stowage* on steam boats.

We think if a convention of Nurserymen and dealers were to be held, and they should give a decided expression of their feelings upon the subject, we would hear no more of trees being detained, and exposed, on a sunny wharf for two weeks, when only about ten hours from their destination.

[The evil complained of by our correspondent is a most serious one. We are now suffering the loss of some of the products of fine fruit trees which might be in full bearing at this moment, from the utter recklessness of transporters; the rail road, which should be the greatest boon to producers and consumers of perishable articles, has become a nuisance, by creating expectations and charging a remuneration for services unperformed. An effort has been made to remedy this intolerable evil, not without some success in certain quarters, and we endorse our correspondents suggestion that a "convention" should proclaim the evil; the next pomological meeting would be a suitable time to pass resolutions and address a circular to the Presidents of every road in the Union.

Conductors and agents are fast becoming an irresponsible, careless class; baggage of all kinds is tumbled about and mashed whenever practicable, with a gratification that seems to say, "I would serve the owner just so, if I dare!" Poor human nature, it can scarcely bear to be dressed in a little "brief authority."]

CULTIVATION AND IMPROVEMENT OF THE WATER MELON.

BY EDWARD DEEKER, GARDENER TO J. Q. JONES, NEW BRIGHTON, STATEN ISLAND, NEW YORK.

THE Water Melon is unanimously considered the most deliciously cool and refreshing fruit we can boast of, and perhaps with the exception of the Peach and Musk Melon most sought after both by rich and poor, each grade of society being anxious for his share of this most grateful summer beverage; the one taking his with wine, etc., after a good dinner, and the other his at the nearest stall to be found at the corner of any street in our large cities.

The whole natural order, *Cucurbitaceæ*, of which the Water Melon is but an individual variety, are so prone to fertilize with each other that when grown in company with Messrs. Pumpkin, Squash & Co. they become so altered in general appearance that we very much doubt if that renowned member of modern society, "A Philadelphia Lawyer," could guess which would be the original package to sow for a future progeny, without being sorely puzzled.

Not but that we now and then run across an old-fashioned Black Spanish or Sweet Mountain, true to name and in their proper character, but then 'tis like angels' visits, few and far between, and like them must be considered as something very novel, and exceedingly rare. I would not wish to depreciate the character of our honest seedsmen, many of whom do all in their power to give their customers those varieties which are true to name and quality, but as they are often left to the tender mercies of other parties for a supply, and the above-named peculiarities not having been attended to, from the near proximity during blooming of those nearly allied subjects, it often so happens that what should have been a favorite Sweet Mountain or Black Spanish of fourteen to sixteen pounds, with solid and eatable flesh to the rind, only proves a trifle superior to what Pumpkin pies are made from, and so large that a wheelbarrow has to be brought into requisition to convey the tough body from the place of its former development. The improvement of the Water Melon in a great measure rests with the "Gentlemen's Gardeners" and amateurs, who may be considered as the pioneers of the Horticultural army, and who, by putting their "shoulders to the wheel" with a hearty good will as to saving seed from the best in shape and most highly flavored, would, in a few seasons so far improve them for the better that the "Oldest Inhabitant" would turn up his eyes with delight at the very idea of tasting a genuine Water Melon.

The Water Melon may then fairly claim to be classed A. 1 in the estimation of the "million," and should be strictly prohibited from being seen in company with any plants belonging to the same natural family.

Having made selection of a spot for your Melon patch, you will greatly benefit your ground and forward yourself, by manuring in the fall, instead of stopping till the busy spring time commences, and you find you have a dozen things want attending to at once. After giving your ground a middling coat of manure, dig it well two spits in depth, throwing it up in ridges to enable it to receive the benefit of a good sharp frost, which will mellow and sweeten the soil, besides destroying millions of insects in the embryo state.

The last week in April, or the first in May, is the most desirable time to sow your seed; having levelled and forked over the ground that was manured in the fall, commence by marking off your plot into squares nine feet apart each way—dig out the soil two feet square, spreading it equally all round, then fill up the holes with good rotten manure, and the top spit from an old pasture in equal quantities, well mixed and broken with the spade is the best, but any good, light, moderately rich soil will do; fill the holes six inches higher than the surrounding ground; over these place your Melon boxes and sow from eight to ten seeds in each. If you have not the

convenience of boxes, four bricks laid edgeways, so as to form a square, and covered with a sheet of glass is a good substitute. As soon as you have sown your seeds, place the sashes on the boxes, and let them remain on till the seed is fairly up, then commence giving air on all favorable opportunities, not forgetting to pull the sashes off in warm showers, and increasing as the plants progress in strength; thin them out to four plants in each hill so soon as they have made two rough leaves; keep them free from weeds, and draw the soil about the stems so as to strengthen them against the winds. When they have made four or six rough leaves stop the end of each shoot to make them branch out. As soon as the weather becomes settled remove the sashes but let the boxes remain, as they prevent in a great measure the plants from being attacked by a black and yellow striped bug, and can easily be taken away when they become filled with vines. The best remedy we have found for the destruction of this pest, is a slight sprinkle from the rose of a watering pot of whale oil soap, diluted in water. Half a pound of soap to six gallons of water every other day, from the time the plants make their appearance until they begin to grow freely. As every foot of ground is valuable in small gardens, it is advisable to sow a row of early Bush Beans, Turnip-Rooted Beets, etc., between the hills, and they will be off the ground before the Melons occupy the whole; attending to hoeing and keeping clear of weeds is all the further assistance they require.

THE CULTIVATION OF THE LETTUCE.

BY WILLIAM CHORLTON.

THE Lettuce being so common a vegetable, your readers may think any thing superfluous that may be said respecting such an every day article, but as we are constantly filling the periodicals with all other departments of gardening affairs to the almost exclusion of kitchen requisites, you will perhaps excuse a little "jog trot" in this way once in a while; and as a cooling, tender, crisp lettuce is so grateful an accompaniment on the table amongst other things, let us see what can be said respecting its culture and the immediate connections.

The indigenous country of this edible now in its modern form is not positively known, and its earliest history is wrapped in obscurity. Like many other things of a similar character, we enjoy the luxury without being cognizant of the origin, but thanks to our now more enlightening policy, we can proclaim to the world our progress, and instead of being trammeled by the mystery and exclusiveness of the dark ages, our onward action or new discoveries can be handed down to posterity. It is generally acknowledged that Egypt, the Island of Cos, and the Levant have furnished many of the varieties. All the cultivated kinds are considered to have emanated from *Lactuca sativa*, but the probability is that several species of that genus have each furnished their quota to make up the general aggregate, and, that the particular species named is only a *conglomerated distinction*. This is more likely

when we examine the extensive geographical range of the family in a state of nature, and it is most likely that each country where it was anciently cultivated, has had its distinct type. This is partly proved by the difference of hardiness that exists between the different classes, and other peculiarities, even at the present day; and the time has not long gone by when the distinction was much greater, on account of the lesser number of sorts that then existed.

The genus Lactuca, from the Latin word *lac*, from the milky juice with which it abounds, belongs to the very numerous natural order Compositæ, and was arranged by Linnæus in his nineteenth class, Syngenesia, and first order Æqualis; there are aboriginal representations in various parts of the Eastern and Western hemispheres.

In a normal condition some of the species are poisonous, but as we have the varieties in cultivation, they are cooling and comfortable to the stomach if taken in moderation, notwithstanding which, if eaten to excess, they will produce drowsiness and a lethargic feeling. The dried juice furnishes a mild form of opium, which may be given to advantage in disease, when that made from the poppy could not be administered.

The Lettuce is divided into two classes, viz: *Cabbage* and *Cos;* the outside leaves of the former spread out flat on the ground, and the inner ones incurve upwards so as to form a solid head, the inside of which, from the compactness and exclusion of light, become tender and free from bitterness; while the latter is more upright, and requires the leaves to be tied together near the top some two weeks before use. In temperate and cool latitudes some sorts of Cos do well, are of very superior flavor, and grow large, but with us they are not hardy enough to bear the winter, and sprout up for seed too soon in summer, which makes it necessary to adopt the cabbage varieties. The following descriptive list contains some of the best kinds in cultivation.

Hardy Green or *Hammersmith*—Small, close, and solid head, leaves bright green, very hardy, good for winter.

White or *Curled Silesia*—Heads well, leaves whitish yellow, curled and cut on the edges, crisp, and good flavored. Best for summer, as it stands the heat well.

Malta Cabbage or *Drumhead*—Large, close head, leaves whitish green; tender, crisp, and sweet flavored. A fine Lettuce for spring and fall use.

Early White Cabbage or *Butter*—Yellowish green, does not head close, but a good sort for forcing.

Loco Foco—Large, green, and like in leaf to Silesia, suitable for winter, being hardy.

Brown Dutch—Close head, leaves brownish green, good flavor, and very hardy for winter.

When fancy leads that way, the *Brown Bath*, and *Paris Cos*, are about the two best of the class. The former is hardy and fine flavored, but the latter will stand the heat of summer better.

The Lettuce delights in a mellow and rich soil, and if the best quality be required,

the organic parts of the material ought to be well decomposed, consequently good rotted barn-yard manure will not be lost when judiciously applied to this crop, neither will the free use of it, if thoroughly disseminated, be contrary to economy. Good culture is indispensable in the production of the best quality of all kitchen vegetables, and so in this. Work the soil well, dig deep, and break the clods fine with the spade, adding a sufficiency of dung, and our word for it, the extra labor will meet with a corresponding return profit.

With a little foresight and management, this esculent may be had fit for use the year round, and the following few remarks are penned to show how this may be carried out. As the present is about the time to prepare for early winter, we will begin with the crop for that purpose first. About the third week in August, sow the seed in drills a foot apart, and half an inch deep. If the weather be moist no watering will be required; but if dry, a good soaking should be applied a short time previous to sowing. When the young plants have grown five or six leaves they will be ready for transplanting, which may be done in the usual way, about ten inches asunder. As these will be ready for use a little previous to winter, and it is expected they shall supply the early part of that season, it is well to forecast the situation, so that it may be convenient to put box frames over them when severe weather is apprehended; or where there is the advantage of a grapery, the plants may be carefully lifted with the balls of earth and planted therein. This stock, if kept covered from frost, by placing marsh hay or straw inside the frames, or straw mats over the outside, with a lining on the sides, will give a supply up to February. If another sowing be made the first week in September and treated in the same way, excepting that the young plants may be planted when large enough into their winter quarters in the frames, a further supply will be provided to serve through the remainder of the winter. This latter crop may be put so close as six inches apart, which will economise space, and, as wanted, each alternate head may be cut out, which will leave room for those that are left to expand their size. It sometimes so happens in very severe weather, that growth is suspended, and the plants do not progress in consequence, when if a portion be placed in a slight hot-bed the deficiency will be made up in a few days, for there is, perhaps, no other plant which at this particular stage is so much benefited by a little bottom heat. During the winter, light and air should be admitted on all favorable opportunities, which will not only prevent rotting, but will also assist healthy growth. The next succession ought to be sowed early in January, in a frame that is well protected by linings and mats, or in boxes in a cool green-house and placed near the glass. These will be ready for transplanting into frames by the beginning of March, and will give a further supply until the general spring sowing comes in. So soon as the ground is in good working order, a portion of seed may be sown in a sheltered aspect, and when large enough, the young plants may be put out as described in the first recording of these operations, and at intervals of a month, a still further quantity, according to requirements, which will give, with proper care as to variety as stated above, a supply the whole year, and a reference to the list of varieties will enable any one to select for all purposes.

THE NEW ROCHELLE BLACKBERRY AGAIN.

BY CHARLES DOWNING, NEWBURGH, NEW YORK.

Ed. Horticulturist:—Mr. C. Hubbard, in the August number of the Horticulturist, speaking of impostures, relates a conversation of his Scotch Gardener respecting the New Rochelle Blackberry, in which he calls it the Scotch Bramble, and an old fruit he seems well acquainted with; a species of bramble it certainly is, but that he ever saw this identical Blackberry is a matter of doubt.

If it is an old fruit, and so well known in Europe, how is it that it has not been introduced and propagated among the Nurserymen and amateurs here, along with their other importations of new and good fruits? One thing is certain, it is a valuable fruit, and deserves the attention of amateurs and fruit growers, and every person who cultivates even a small portion of ground would do well to procure a few plants. A dozen or so in full bearing will give fruit sufficient for an ordinary family for some six weeks.

Having a desire to see more of it this season, in company with my friend Dr. C. W. Grant I visited the grounds of George Seymore & Co., South Norwalk, Conn., where we saw them in perfection, and the crop large and fine.

We also called on Mr. Wm. Lawton, Mr. S. P. Carpenter, and Mr. Lewis A. Seacor, all of New Rochelle, and at each of these places we found the same varieties in cultivation. The quantity of each bush is enormous; fruit large, and all any one could desire.

If any one has doubts of its being a valuable Blackberry they should visit the grounds of any of the growers between the 1st and 20th of August, and their doubts will vanish like the dew.

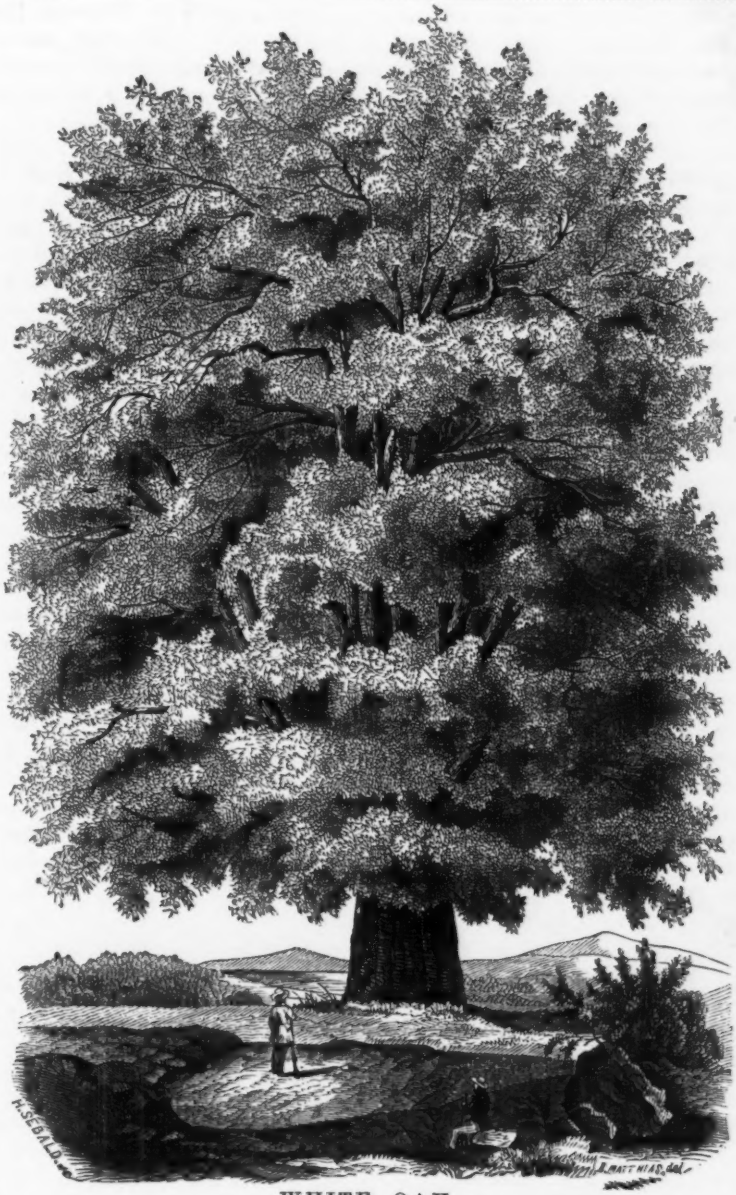
The quality and productiveness of this Blackberry is as much affected by soil and cultivation as any other fruit, deep tillage, rich and moist (not wet) soil are favourable to its greatest excellence.

The origin of this Blackberry is uncertain, but most likely is an accidental seedling, and was found by Mr. Seacor on a farm in New Rochelle, and has been propagated and disseminated by him—Mr. Seacor being absent we could not get his history of it, but it has been published in journals of late, and especially in the June number of the *Horticulturist*.

ARBORICULTURAL NOTICES.—NO. III.

In the hope that these notices may be the humble means of calling attention to many of our beautiful but neglected trees, I shall occasionally lay aside the rule I adopted at the commencement,—namely, to describe only those fine specimens growing in my immediate neighborhood. In the present instance, I have been so impressed with the injustice which our *White Oak* suffers from planters of ornamental trees, who very rarely indeed include it in their lists of "desirables" which they occasionally hand to their nurserymen, that I have taken for the subject of this sketch one in the grounds of SPRINGBROOK, near Holmesburg, Pa.; the COUNTRY SEAT OF CALEB COPE, ESQ., which contains one of the handsomest specimens I have seen. It is not in its height (seventy-two feet), that it excels, for I have seen taller; nor in its circumference at four feet from the ground (twelve feet) for there are occasionally some of greater dimensions met with; but as a vigorous, healthy, symmetrical, and withal a very large tree, it has few superiors. It has a very broad base (see sketch), measuring near the ground line thirty feet; which adds materially to its grandeur and majesty. Its healthy vigor is no doubt owing in great part, to its favorable situation. Located in the hollow formed by two gentle slopes, and below the level of a near turnpike road, the washings after heavy rains assist in affording nourishment just suited to it. The White Oak is getting so scarce in its native localities, that our posterity will speak of it as we do of the Mastodon, and other famed lords of the animal kingdom which once existed on this curious world, unless our planters pay more attention to it. Long ago MICHAUD wrote of it—"I must be allowed to hazard a conjecture on the consequences of the neglect of all means of preserving this tree in the United States; consequences which neither the Federal government nor the States, take any measures to prevent. From the increase of population and from the impoverishment of the soil, produced by a gradual change in the climate, the White Oak will —probably in less than fifty years—be most rare in the Middle States, where it is now most abundant, and in Tennessee, Kentucky, Genesee, and further North, where it is the least multiplied, it will be the most common, and will replace the species which now compose the forest, but which the soil will then be too feeble to maintain." When by the apathy and neglect of our planters, the White Oak shall have been lost to us, our descendants will thank the "Horticulturist" for preserving to them at least a sketch of this beautiful and noble tree.

Springbrook is comparatively a new place, having been made what it is quite recently, and by the present public spirited proprietor. Little more than seven



WHITE OAK.

OHIO STATE

years ago, when the writer first visited the grounds, the White Pines and Red Maples lining the carriage road, could be nearly measured by the hand; most of these are now thirty feet high, and three feet in circumference, showing what, by careful planting and subsequent attention, a few short years may accomplish. There is here also a fine specimen of the *Acacia julibrissin*, now in full blossom, about twenty feet high, and its trunk about thirty inches in circumference. Some portions of this tree always suffer in most winters, but notwithstanding, it always manages to increase each season "in grace and beauty." Though when leafless, it is a very unpicturesque tree, there are few more pleasing when clothed with foliage. Near this an English bird Cherry (*Cerasus padus*) exists, a favorite small tree of mine. Its fragrant flowers in long racemes, appear a month earlier than our own pretty Wild Cherry (*C. serotina*), and serve to prolong a very interesting season. Those who admire dense headed, compact growing trees, will be pleased with a specimen of the English Maple (*Acer campestre*), a very fine specimen. Its gooseberry-like leaves, and corky bark, give it a peculiar appearance; and near it is a Turkey Oak, about twenty-five feet high, and clothed with branches to the ground. Amongst the old trees that have long lived here, is a remarkably handsome specimen of the European Linden (*Tilia Europea*), about seventy or eighty feet high, with a pretty conical outline, the lower branches sweeping the ground for a wide distance around. Those who have ever seen this very pretty tree, or enjoyed but a short period its pleasant shade, will not readily join in the annual newspaper cry of "cut away the Lindens." A young but very vigorous specimen of the weeping variety of the American White Linden, (*Tilia Michauxi*, Nuttal), admonishes us that this beautiful tree is not near enough known or appreciated.

Amongst the younger trees, of which it is the pride of the proprietor to have a specimen of each that can be obtained, I noticed as having stood the winter well and making vigorous growth, *Pinus ponderosa* about four feet high; *P. pumilio*, three feet; *P. Hamiltoni*, two feet; *P. excelsa*, four feet; *P. pinaster*, ten feet and bearing cones; *Abies Smithiana*, three feet; *A. Douglasii*, three feet; *Cedrus Deodara*, ten feet, making surprising growth; *C. Africana*, three feet; *C. Libani*, three feet; *Picea pinsapo*, assuming a spreading habit; *Biota* (Thuja) *pendula*, five feet; *Taxus Dovastoni*, weeping yew, three feet. M.

STRAWBERRIES AND GRAPES IN MISSOURI.

BY H. M. MYERS, BOONVILLE.

I SEE in the August number of the Horticulturist some account of the Strawberry crop of Cincinnati, Ohio, by Mr. STOMS. Permit me to give you an account of my own;—I have one and one-fourth of an acre in Strawberries, and sold one hundred and two bushels; used in my family say ten bushels, making one hundred and twelve bushels, at 15 cents per quart, $537 60; about one-half my ground is in Hovey's, the balance in the Necked Pine; Hovey's are the largest, and of course sell best; the Pine much the finest flavored and most prolific. In regard to the sexualities of the plants, not one plant could be found in my Pines but were full of perfect berries, and but few among the Hoveys, but not as a general thing more than from two to four perfect berries to the stem; the Pines would have from six to twelve perfect berries to the stem; (the largest of my Hoveys measured four to four and a half inches in circumference.)

We are also succeeding finely here with the Grape, the culture of which only commenced in this county some five years since by the Germans, but now many others are getting at it. I planted two acres five years since, mostly Catawbas and a few Isabellas, but the Catawbas are a much surer crop than any others; this year I think I shall make one thousand gallons of wine from my two acres; the vines are very full, and but very few have fallen off. Some vineyards in this county have been troubled very much with the rot, others but little. The Germans have a Grape that bids fair to do well here; they brought the slips from Germany. They are earlier than the Catawba or Isabella, small but very compact bunches, now turning red and black when ripe; make red wine, and are a fine table Grape, the last of this month. Our Catawbas are fit for table use through September, and wine is made from them from 15th September to 10th October. Isabellas ripen about the same time.

PLANTING.

BY GEO. H. TAYLOR, CHICAGO, ILLINOIS.

IT is pleasing to reflect that the great and good of all ages have been patrons of arboriculture. One redeeming feature of the monkish orders was their charity to the poor wayfarer: another, and of which the vestiges are yet apparent in the countries where those societies flourished, was their love of gardens and orchards. Through these sometimes ascetic, now forgotten men, there is little doubt that much of the improvement of our standard orchard fruits, such at least as it existed a century ago, originated and was preserved, in a state of society little adapted to the

development of science. The largest fruit trees the writer ever beheld, colossal pear and venerable apple trees, grow beneath the walls of the City of Chester, England, in what was once a part of the gardens attached to the Convent of St. John of Jerusalem. At Coutances in Normandy, an ancient archiepiscopal see, surrounded by grey massy walls, covered with the lichens of ages, which line a portion of the principal street, is an orchard of antiquated pear and apple trees, which look like denizens of a medieval forest. And at Nantes, on the rich alluvion of the yellow Loire, in the grounds of the Madeleines, and on the islands of the Sevre, are heavy clumps of large old trees, pear and apple, medlar and chestnuts, many of which probably budded and shed their leaves under the rule of Henri Quatre.

To descend to a later date—passing the period when Shakspeare planted his mulberry and avenue of limes, to the time when the magnificent gardens of Chatsworth and Trentham were planned and planted by their lordly owners, we find the great English moralist advocating the cause of Pomona and Sylva; and may we not pardon somewhat of his bearish demeanor and dogmatic aristocracy for the help that he has rendered? There is a well-known and ludicrous conclusion to his first piece of advice upon the subject, but which does not by any means detract from the value of the recommendation. Dr. William Maxwell says, Dr. Johnson "advises me, if possible, to have a good orchard. He knew, he said, a clergyman of small income, who brought up a family very respectably, which *he chiefly fed with apple dumplings.*"

Johnson gave great offence to the Scotch by his animadversions on the want of woodland in that part of Britain, and we know from Lord Hailes and Sir Alexander Dick, that these very strictures were the *primum mobile* of the extensive system of planting those sterile lands which have been in operation for the last sixty or eighty years. His *Fidus Achates*, Boswell, tells us in his precise way, under date of 24th Sept. 1777, "He recommended me to plant a considerable part of a large moorish (moorland?) farm which I had purchased, and he made several calculations of the expense and profit. * * * * He pressed upon me the importance of planting at the first in a very efficient manner, quoting the saying, '*In bello non licet bis errare,*' and adding, this is equally true in planting."

It would perhaps be well for the future of Northern Illinois if some more polished Johnson of our own day and generation, would rake down on our farmers and speculators in land in a manner to be felt. They have, indeed, recently taken the initiative in planting in a degree, on the fence lines, and in front of city lots; but in most instances, the "subjects," trees I cannot call them, had better have been allowed to dwindle out a pinched existence in the swamps from whence they were dug. A poetical imagination on viewing a row of trees of this description, planted in unbroken prairie, in holes eighteen inches in diameter, and well "boot-heeled" in, would, I opine, be strongly reminded of Falstaff's army. Of course not one half of such trees so treated can ever be expected to live, and those which do survive only remain to furnish the idea of a sapling-hospital.

THE FIRE BLIGHT.—CRACKING OF PEARS.

BY J. H. ERNST, CINCINNATI, OHIO.

I HAVE been a learner for the last fifty years, a large portion of it devoted to Horticulture. My zeal has prompted me to a close scrutiny of the various phenomena that often cross the Horticulturist's path, the solution of which has not always been as satisfactory as is desirable. This is especially the case with the Pear, the trees and the maladies to which it is subject. The cause of the fire-blight, so called, I think I fully understand, experience confirming the correctness of the views presented by me on former occasions in the pages of the *Horticulturist*. This summer has afforded another opportunity for testing them. Those who have paid attention to the matter will probably remember that I suggested, that with the return of a wet summer, we should have the fire-blight, which seemed almost to have disappeared for several years. This has proved so, most fatally so, in some situations destroying very fine trees. I have had much of it in my own trees this summer — some very severe attacks in large and small trees, on the Quince and on their own stocks. I have however succeeded in checking it in every instance and saved my trees. And as a knowledge of the saving or curing process is of more importance to the cultivator, as that is a practical operation within his reach, and the other, the cause of it, is not, with our present enfeebled stock of trees, I will here give more fully my method of checking it than I have elsewhere, that others may practice it if they will.

The moment I discover symptoms of Blight, I proceed with the knife; if in the limb, I lop it off until I come to the sound and healthy wood, then I examine downwards; I often find other branches, and sometimes the body of the tree affected. This is very readily discovered by the dark and unnatural appearance of the bark; this will sometimes be found in streaks up and down, at other times in blotches, at times encircling the branch or body of the tree. If there is any doubt about it, it is only necessary to cut into the bark a little, when its unhealthy condition will appear. Just so far as this is discoverable, I carefully take off with my sharp knife, the outward bark, to the sapwood, being careful to do this as little harm as possible. It will be found that the injury is in this outward bark, that it has not yet seriously affected the sapwood, and the inner coating of vitality, but which it soon will if permitted to remain. I have invariably found when I have attended to this process in time, that soon a new and healthy bark is formed, and the remaining unhealthy

parts are thrown off. The tree resumes its usual healthy action in the forming of wood and the maturing of fruit. This I have proved not only once, but in twenty instances or more; and not one year, but a series of years. Trees treated thus years ago, are now healthy and full of fruit. I have been pained to witness the destruction of valuable trees in other collections for want of timely and proper attention, the proprietors holding on to the *old notion of insect poison*, and in hopeless despair looking on the work of destruction. It is not safe to delay one moment after it is discovered to exist in a tree, but instantly to apply the knife. This disease may, with great propriety, be termed vegetable mortification, which extends rapidly inward to the sap vessels, to the vitals of the tree; when these are once reached on the body of the tree, all hope to save it is at an end.

A remark, if you please, on the singular freak of my White Doyenne trees, in producing fine, splendid fruit for years after planting, then for the space of nine or ten years uniformly cracking and producing only unsightly and worthless fruit; then suddenly to resume their former habit in the production of as fair and handsome fruit as you could wish to look on, or to eat; and this without any apparent cause, or the least change to the soil or any thing being done to the tops. This to me is altogether an unaccountable mystery. I had attributed the return to their former habit, of the production of fair and good fruit to the last two or three unusually dry summers, but this being an unexampled wet one, and my fruit being now fully formed and grown, without the blemish of a crack, I am just where I started, a "*know nothing*" on that subject. And I think the facts developed in my trees upset all the theories that have been started as to the cause. At all events, they prove conclusively that it is not to the variety having run out by old age, or that the trees had absorbed from the soil all the particles necessary to their healthy action, and the perfection of fruit. As I have observed in a former communication, my trees are scattered over my grounds, some in cultivated land, and others in grass; the latter have never been disturbed about the roots, some the first fruited; the others have shared in the benefits of the other crops in the cultivation, and yet all have acted precisely alike. I feel very desirous for more light on the subject; can you or some of your numerous subscribers furnish it? I certainly shall feel myself greatly obliged for it.

Philadelphia has lately been visited, by a deputation of the Councils of Rochester, New York, who have discovered that by the late connections or links of Railroads they reside nearer to tide water via Pennsylvania than by their own roads, and accordingly they had a good jollification. Ex-Mayor Smith of Rochester, made the following remark respecting the nurseries of that place:—

"Allow me to mention one other branch of industry, whose results are permanent, and which is in fact a *growing* branch; that is the cultivation of fruit trees, which already employs in the vicinity of Rochester at least one thousand persons, with sales last year reaching half a million of dollars. More fruit trees are raised in Monroe county than in all the United States besides, and these find a market in every hamlet from the interior of California to the northern borders of Maine."

RETROSPECTIVE.—CHERRIES, &c.

BY W. R. PRINCE, FLUSHING, L. I.

RETROSPECTIVE.—In your August number, page 386, there are notes on the following subjects, to which I will respond.

Tamarind.—It is *not true*, that this tree is growing and producing fruit in Virginia. It is so tender that it would not survive there during even the mildest month of one of their mildest winters. Some other tree must have been thus misnamed, and described.

Weigelia Amabilis.—The flowers do greatly assimilate to the *rosea*. The foliage is, however, larger and handsomer, and the growth much more vigorous than that species. *Weigelia Splendens* has pale, yellow flowers, produced in long racemes.

Walsh's Cherry.—I tested this cherry, and the fruit is identical with the "Black Bigarreau of Savoy," and in the whole catalogue of cherries there is not one variety that bears any similitude to this, except the "Tradescant's Black," and that is readily distinguishable by the growth of the tree, as well as the fruit. It was imported by me about the year 1824, from the Nursery at Tonnelle in the Mediterranean, France, afterwards from the Nursery at Milan, Italy. In their catalogues now before me, it is called "*Bigarreau noir de Savoie.*" It is a very large round black cherry, of fine appearance, and strikingly distinct from every other variety known among us, and no cherry like it could have been produced from any other but itself. Mr. Walker asks—"If Mr. Walsh's cherry is not a seedling, why have we not in 15 or 20 years found it imported from Europe?" The answer is very simple and explicit. The Black Bigarreau of Savoy Cherry is not found in any Belgian, or English, or Paris, or Angers, or Orleans Nursery Catalogue, and it is from these that Americans make their selections. It is emphatically an Italian variety, and seems to be but little known, except in that country, and in that part of Mediterranean France close bordering thereto. I have never seen it named in but two French Catalogues, both of that region. They know nothing about this cherry at Paris or London. My specimen tree *on mahaleb* is now 30 feet high. I will now refer to another most important cherry from the same region.

Large Red Prool, or Bigarreau de Prool a gros fruit.—This is the largest of all cherries, and one of the very finest; the tree is of great vigour, with large, somewhat pendulous foliage. It was imported at the same time as the preceding, and my specimen tree on Mahaleb is 35 feet high. I have several times stated, that

Downing's "Great Bigarreau" was one or the other of these varieties, and that the original "Great Bigarreau" tree at Coldenham, which is *on Mahaleb*, was sold there by my father; and on a recent visit from Mr. Chas. Downing, he recognized its identity with the Large Red Prool. At that period no other Nursery in the Union used the Mahaleb Stock but ourselves.

Culture of the Olive.—The Olive will support our ordinary winters *here*, by being bound in straw, and will, at any place South of Wilmington, N. C., attain a development sufficient to become a valuable fruit-bearing tree. I noticed in the elevated and temperate regions of Mexico, many extensive orchards of the Olive, but seemingly neglected and going to decay, like everything else in that benighted country,—a decay from which even their Churches were not exempt. As to grafting the Olive on the Privet (Ligustrum), it would be a most useless affair, for although life could be retained, there could be no useful development. You might as well ingraft an Apple tree on any diminutive Hawthorn. The only tree suitable to ingraft it on is the American Olive, but it would be much better not to graft it at all.

WILL PEAR CULTURE BE SUCCESSFUL?

BY B., NEW JERSEY.

THIS much controverted question seems to have little chance of being settled in the present general state of deficient and rough cultivation. All that the author of these remarks has seen of pear culture in the United States, satisfies him entirely, that this valuable fruit must succeed here far better than in Europe, under good cultivation, and by a judicious selection of such varieties, foreign and native, as experience has shown us are fitted to our climate and soil.

But if some understand by "cultivation" the mere planting of a fruit tree, in holes as small as cigar boxes, in any soil or condition, and of any variety, certainly the cultivation of the pear cannot and will not succeed, any more than melon or lima bean culture would succeed in all kinds of soil, among weeds and brushwood.

But if a judicious selection of varieties, adapted to your soil, aspect, and climate; if the good management of your grounds, the healthy stocks, and a little care in pruning and cleaning will not make your pear trees grow, you may safely conclude, that the cultivation of any other fine product of nature and art combined stands no better chance; and that there is an unaccountable something, either in the soil, subsoil, or climate. Thus far I have not seen in the States *any* unsuccessful *culti-*

vation of the pear, at least wherever it has been undertaken with as much skill and judgment as is required to raise asparagus, celery, nay, potatoes and corn.

In every latitude, from Maine to Georgia, fine native fruits have originated from chance seedlings; we have the Raymond of Maine, the Dix, and a score of other pears in Massachusetts; the Buffum in Rhode Island, the Lawrence in Long Island, with many valuable varieties in Connecticut, Pennsylvania, and Delaware, which all prove the perfect adaptedness of the pear tree to our soil and climate, many being superior in standard qualities, such as growth and delicacy of the fruit, to most foreign varieties; such are the Sheldon, Lawrence, Brandywine, Kingsessing, Seckel, the noble Buffum, the Howell, the Philadelphia, and many others.

When we see so many peach orchards destroyed by neglect after four or five years of prolific bearing, reduced to nothing by the absence of all care, pruning, or attention to insects and diseases, shall we conclude that "peaches don't succeed!" It may be true, that the peach tree is generally more hardy, at least for a short period of its existence, than the finest varieties of the pear; it can bear weeds and neglect for a time, but no fruit tree can last long under such circumstances. Those who have seen the pear tree in all its splendor, in such experimental grounds as the Hon. Mr. Wilder's, Ellwanger and Barry's, Mr. Cushing's, Mr. Buist's, William Reid's, Hovey's, and many other careful cultivators; those who have seen these noble pyramids yield, year after year, their golden and crimson treasures, "tempting to the view," and luscious beyond all other fruits, must feel convinced, that under good management, the pear is one of the surest crops we can depend upon; perhaps more sure than the apple and the cherry, and at anyrate more so than the peach, the plum, and the grape, in the Northern and Middle States.

And if the cultivation of the pear, that "queen of the gardens," required double care and expense, the amateur of good and lasting fruit would not give it up; but happily for him and for the future supply of the markets, it is not so. The pear tree is less subject to diseases, &c., arising from insects or climatic influences, taken altogether, than the peach, the plum, and even the apple. With a judicious selection of varieties, adapted to your soil and latitude, grafted on the most suitable stock, with such ordinary care as a gardener bestows on the planting of a rose or a cabbage, with the cleaning, weeding, and mulching bestowed on a green-house plant or a favorite flower, success is certain; and perhaps more certain than with any other fruit, as pear trees will bear, year after year, without giving out, or wasting their vigor.

If, to all those advantages, we add the great facility of giving any size or form to the bearing tree, its fitness to fill either a small or a large spot, to admit of its shrubby, pyramidal, or wide-spread form, we could scarcely wish for a better product. The writer has seen in Massachusetts, in Rhode Island, and about Philadelphia, handsome, vigorous pear trees, not only natives, but such varieties as require the protection of a wall in England, in part of France and Belgium. He could name some grounds, such as Clover-hill, for instance, where the Seckel and the Virgalieu grow, in their full vigor, in the midst of *grass plots*, places where the hardiest

European variety would not succeed in its native soil. Such a soil, such a climate must be fitted for the pear tree, and a little care and attentive culture would soon put an end to all doubts and dissenting opinions on this interesting topic.

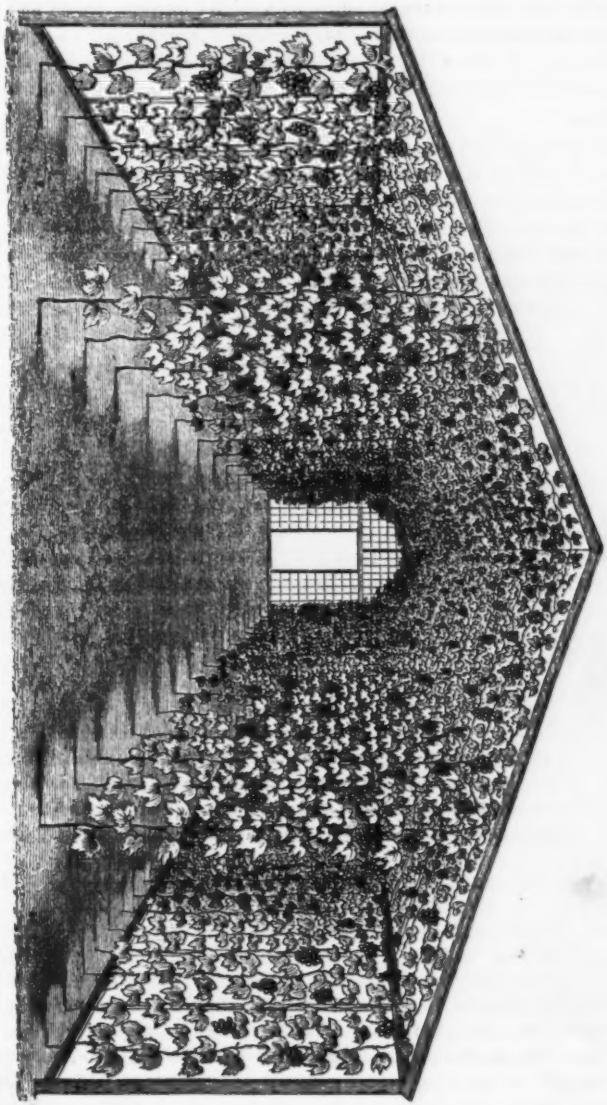
[Our valued correspondent knows what he says; he is a devoted lover of all horticultural subjects, but especially has he studied the pear at home and abroad.—Ed.]

THE GRAPE.

WHILE writing the article on the "Progress of Horticulture" in the last number, the cultivation of the Catawba & Isabella grapes for market might have been successfully dwelt upon. Dr. Underhill who supplies New York with these grapes from his vineyard at Croton Point, on the North River, writes to the author of that valuable work, "A practical treatise on the Culture and Treatment of the grapevine, By J. Fisk Allen," that when the greater part of the community who can afford it partake freely of this delightful fruit, which they will in a few years, if they can obtain it, it is my belief, from a close scrutiny into the vine and progress of the grape culture on the Atlantic sea coast," (he might have said, in the United States,) a hundred vineyards will not supply the demand for this fruit in New York, Philadelphia, and Boston, at renumerating prices." It is understood that his culture has been very profitable.

Mr. Allen's work may be perused with great advantage; himself a successful cultivator, the book would seem to have been the result of much practice, reading and inquiring, and in recently looking over it again we find the contents full of various information and instruction. He quotes the remark of Dr. Underhill that "An Isabella grape vineyard properly planted, with acclimated vines, and planted as they should be, will, in this climate, *give a more certain annual crop than Indian corn.*" In fact, nature seems to have pointed out to us, by the abundant growth everywhere of native grapes, that we might safely employ our time in America in producing wine. If slow to improve the idea, now that the way to do so has been pioneered in the West and the South, there is little doubt that it will be prosecuted to ultimate and entire success in places where, as yet, it has not been thought of. Dr. Kirtland finds on the shore of Lake Erie, at Cleveland, Ohio, the grape-vine ripens its fruit equally well, if not better, than at Cincinnati, there being, in his opinion, a conservative property in the waters of the Lake which suits the culture. We find the best native kinds succeeding perfectly as far north as New York, and also in North Carolina, in the west at St. Louis, and we can see no reason why it should not be a profitable culture in all the intermediate points. Mr. Allen has inquired, and he gives the

result of his inquiries as regards the kinds that will suit, as the Catawba and Isabella in the north, and the Scuppernong in Carolina, while in Florida the Malaga



GRAPERY.

was pronounced as far superior to the imported as a ripe peach to a green one, and the Muscat of Alexandria has been produced in the open air weighing 8½ pounds to the bunch. On this subject the reader will do well to consult Mr. Allen's book, which we have been tempted to notice both for its intrinsic merits and to afford an opportunity to introduce a copy of his frontispiece, representing a Grapery of a model appearance, as it should look when the vines are properly cultivated, and as several do look which we have this season been delighted to visit, and to partake of their products.

Our author says of this house, "it had four sets of vines planted in it; it was a matter of doubt with me at first whether or not the vines were too much crowded, but since they have matured a fine crop of Grapes, and the fruit on the two inside sets of vines was fully equal in quality and quantity to those where the roots were in the open border, and had more room to ramble and extend themselves."

There is every encouragement from all that has passed, to plant the Grape vine both in Graperies and in the open air, and this book will tell the best ways of doing each.

NEW PLANTS.

Taxus Lindleyana. *A. Murray, in Edinb. new Phil. Journal*, i., 294.

"Leaves two-ranked, linear, flat, of smaller size and narrower than in the common British Yew (T. *baccata*, L.) and the prickle at the end of the leaf is more developed. Berries exactly like those of the Irish Yew, growing on the under side of the branch. Seeds nearly globose, putty coloured. Branches exceedingly long and pendulous. Wood almost as elastic as whalebone—a property which has been turned to useful account by the Indians, who make their bows of it. As I have only an imperfect specimen of the branch and seed, I am sorry that I cannot give more than the above very meagre description. The tree is from 40 to 30 feet high. One which my brother measured was 50 inches in circumference at 5 feet from the ground. Another at the same height measured 5 feet 10 inches in circumference. It was found growing on the sides of a glen under the shade of larger trees which grow higher up. It would consequently make a good filler-up where ordinary underwood does not readily grow. I have named it after Dr. Lindley, whose courtesy and kindness, both now and formerly, in examining for me and reporting upon specimens sent from abroad, I take this opportunity of gratefully acknowledging."

Ca'nna Warszewiczii *Dietr.* Warszewicz's Canna. (Cannaceæ.) Central America.—A stove plant; growing three feet high; with scarlet flowers; appearing in summer; increased by seeds and offsets; grown in good rich soil. Bot. Mag., pl. 4854.

One of the finest of the Cannas, introduced into German gardens in 1849, by M. Von Warszewicz, from Costa Rica. The stem, and more especially the peduncles, ovaries, calyx and bracts are of a fine blood red color, and the flowers of a brilliant scarlet. It attains the height of three to four feet. This species is as easily cultivated as the common Indian shot, and in the German gardens it is planted out in the same way we set out dahlias, salvias, &c. The roots are perennial, and easily wintered in any greenhouse. It is a very brilliant species, and well deserves speedy introduction.—*Bot Mag.*, June.

SPIRÆA GRANDIFLORA.—*Large Flowered Spirea. Nat. order Rosaceæ.—Icosandria Pantagnia.*

This remarkable plant was sent by Mr. Fortune under the name of *Amelanchier Racemosa*, from the North of China; and it is certain that its conspicuous, large flowers cannot fail to recommend it as a very desirable, ornamental, and shrubbery plant. The habit and foliage are that of a an *Amelancheir*; but the structure of the flowers point to the Genus Spiræa. The calyx-tube is remarkable in form, much contracted below, then suddenly at the narrow faux expanded and recurved, and the whole lined with a fleshy disc, at the end of which the fifteen stamens are inserted in threes. The species is extremely different from any hitherto described.—*Curtis's Botanical Magazine.*

[This plant was slightly noticed in a former number.—ED.]

THE BIG TREE, &c.:—At a late London exhibition Mr. Veitch exhibited a good small specimen of the great California tree to the admiration of the amateurs. Also a clear yellow, shining *Rhododendron* from Borneo, with leaves like an Oleander; and *Embothrium coccineum*, which is hardy, or nearly so, and the flowers of a crimson scarlet. A *Rhododendron Californicum*, more in the style of older kinds, and a *Weigelia amabilis*, a far better flower than *rosea*. For his newly introduced plants, not in bloom, he had all the prizes. Here were *Lomatia feruginea*, and *Sonerila Margaretacea*, *Anæctochilus Veichii*, a *Saracenia*, a new variety of *Maranta rosea lineata*, called *elegans*, and *Aralia papyrifera*,

The Messrs. Rollison had a most lovely new stove-plant, called, *Meyenia erecta;* the accent is on the second *e*; it was loaded with large Gloxinia-looking flowers, or rather between that and the shape of a Maurandia flower, of soft blue-lilac colour, tinged with purple, with a light bottom to the tube. The plant is a stiff grower, with small opposite leaves, like some old stove Jasmines. It belongs to the group of Thunbergias, and was named after Meyen, a celebrated botanist, by Nees Von Esenbeck, the great authority for Acanthads.

Mr. Ayres, had a large specimen of a *Blandfordia*, with twelve upright spikes, loaded with drooping, orange-yellow flowers, and *Impatiens Jerdoniæ*, *Sonerila Margaretacea*, not in bloom, and *Hydrolea azurea*, with only one flower open. It is one of the finest plants of that style in the Mexican Flora, and would have been the lion of the day if it had been covered with bloom, as all showy plants ought to be when they 'come out.' The same pains which are taken with young ladies, for their first appearance at court,

should be taken to issue a really fine plant into our gardening world. This very plant made a sensation all over the continent this time two years. It had the first prize at Brussels for a new plant, in July, 1853, and so everywhere else abroad. Our amateurs, and our trade, paid a high price for it, and now it is, or has been, murdered by "indiscretion;" and it is ten to one if one in ten thousand had taken the least notice of it. It might be called a soft-wooded greenhouse-plant; but it gets woody, with slender branches and very small leaves, and when covered with its elegant light blue flowers it must be one of the prettiest plants anywhere. The exact tint is half-way between the blue *Nemophila* and our own *Veronica chamædrys*, with starry white stamens, and the flower is two sizes larger than those of the said Veronica. Every body must have this plant, when it comes to so many pence. It belongs to the same order of plants as the Nemophila, Eutoca, and such like.

Standish and Noble sent a fine standard plant of *Rhododendron Dalhousiæ*, a grafted plant, seven feet high, having had six trusses of blooms, but two of them had fallen off. This extraordinary Rhododendron blooms like a large Lily, with the scent and colour of *Magnolia grandiflora*. Also *Azalea crispiflora*, a unique kind, from the north of China. It is, by nature, a July-flowering plant. It seems to be a natural species, an evergreen, with large rose-coloured flowers, which are crisped on the edges like a frill; the habit is dense, the leaves good, but the quality for which I take so much notice of it is as a father, mother, and nurse to an entire new race of evergreen Azalaes, which will bloom out in the open garden just as well, and as gay and prolific as the present race do in the greenhouse. This is only a question of time.

The same firm sent cut flowering-branches of the new *Spiræ grandiflora*, another hardy plant for the British garden. They also exhibited, but not in bloom, four species of *Evergreen Berberis*, from China and Japan, and all of them are as hardy as our old ones. *B. Japonica intermedia*, and *Beallii*, stood the last winter unprotected, but I believe *trifurcata*, which is from a different part more westwards in China, was not exposed to the frost. Messrs. Standish and Noble also exhibited a species of *Lomaria*, from Valdivia, after the manner of *Magellanica*, but with paler and broader leaves, not to use the fashionable but most erroneous word, *frond*, for a Fern-leaf; and my own most favourite evergreen, the *Weinmannia tricosperma*, also from Valdivia, and, therefore, likely to be hardy. You might pass off the leaves of this beautiful plant for so many Ferns among ordinary mortals, by calling them fronds. They are compound and pinnate, just like so many Fern-leaves, the wings or little side leaves are opposite; and the stipules between each pair of leaves are leafy and sawed, just like the rest of the leaves; in fact, a frond to all intents and purposes.—*Gardeners' Chronicle.*

VARIETIES.

FIG CUTTINGS.—There have been imported from the south of France some choice varieties of the Fig. They are designed for experiment in Southern and Southwestern States, where it is known that this product thrives well. As the fig is a great luxury, either in its green or dried state, we trust that before many years it will be multiplied to that degree which will render it as common in Southern markets as the orange or any other fruit. From some experiments made in Alabama, it is found that, with sufficient enterprise and a judicious expenditure of capital, figs can be cultivated with great profit by drying, for the supply of other States.

A seventh edition of *Hooker and Arnott's British Flora* (Longmans, 14*s.*) has just appeared. It seems to have been carefully revised by the learned authors, and will be found an excellent field companion. We rejoice to find here, as elsewhere in so many places, fresh recruits for the new crusade against bad species; and we hope to see, when the next edition appears, that the genera Salix, Rubus, Rosa, &c., will be finally dealt with as they require. Sir William Hooker in his "Flora Scotica," and Professor Lindley in his "Monograph of Roses," began well; but we cannot say conscientiously that either has been true to his principles. The time, however, has evidently arrived when a determined stand must be made against spurious science, and we trust that no more time will be lost in drawing a clear distinction between botanists and botanophilists. —*Gardeners' Chronicle.*

A FACT IN MANURING.—A person carrying some orange trees from China to the Prince of Wales' Island, when they had many hundred fruit on them, expected a good crop the next year, but was utterly disappointed: they produced but few. A Chinese, settled in in the island, told him if he would have his trees bear, he must treat them as they were accustomed to in China; and he described the following process for providing manure: —"A cistern, so lined and covered as to be air-tight, is half-filled with animal matter; and to prevent bursting from the generation of air, a valve is fixed which gives way with some difficulty, and lets no more gas escape than is necessary: the longer the manure is kept the better, till four years, when it is in perfection; it is taken out in the consistence nearly of jelly, and a small portion buried at the root of every orange tree—the result being an uncommonly great yield." A person hearing of the above fact, and wishing to abridge the term of the preparation, thought that boiling animals to a jelly might have a similar if not so strong an effect. Accordingly, he boiled several puppies, and applied the jelly to the roots of a sterile fig-tree: the benefit was very great — the tree from that time for several years bearing in profusion Hints of this kind are well worth preserving, for though a farmer may neither have the apparatus of the Chinese, nor puppies enough to become an object of attention, yet the reduction of manure to a mucilaginous state ought perhaps to be carried further than it is.

WINDOW GARDENING.—It is only in Paris we can see window-gardening properly carried out. In the first place, the houses are remarkable for their strength and solidity, and they all take a sloping direction towards the top. In the next place, in no other large town, or capital, which I have visited, are the balconies so numerous; and what particularly deserves notice is that here the balconies are always the largest at and near the top of the house, where they may be generally seen rising above one another like so many terraces, loaded with plants and flowers, even to the sixth and seventh story.

GUERNSEY has long been famous for its LILIES; it now promises to become equally celebrated for its Ixias. We have before us a handful of the most charming flowers of that kind which it is possible to imagine, for which we are indebted to Mr. CARRÉ, a gentleman fond of gardening resident on the island. They are mules between *conica*, *longiflora*, we believe *scillaris*, and others, and look as if they had been gathered an hour ago at Cape Town, such is their vigour, such their perfect health. Some are white with a crimson eye, some wholly crimson; others are white and rose-coloured, golden yellow with crimson backs, pure yellow, or cream-coloured with a chocolate eye. Their fragrance is that of Roses. All are from the open ground, no shelter being required in Guernsey. Can we have them here?—*Cottage Gardener.*

FERNS have long been popular plants — nor is there popularity confined to one class of society — and for this reason — whilst all Ferns are beautiful, some of them are so cheap as to be within the purchasing power of all, and others are so scarce and costly as to be worthy companions of all that is rich and rare among the gems of the Stove and Conservatory.

The popularity of Ferns, however, does not rest only upon their beauty and their price, for they have, as an additional cause for their ready access to the good graces of the cultivator, that there is scarcely any place in which Ferns of some genera refuse to grow. Most of them thrive best in the shade; others prefer the brightest light; a third group will live only on dry walls and chalky rocks; a fourth succeed nowhere, except in abundant moisture; a fifth revel in the freest air of the mountain top; and a sixth flourish verdantly for months, and even years, within the close confinement of a Wardian case.

Thus all purses and all situations — if neither the one nor the other are absolutely barren — can command a supply of Ferns.—*Ib.*

THE GOOSBERRY CATERPILLAR.—Some idea of the extent to which this pest has spread may be gathered from the fact, that Mr. MORRIS, the extensive market gardener of Isleworth, has at the present moment, upwards of *one hundred* women daily employed in picking these caterpillars from the Gooseberry bushes.—*Ib.*

SALE OF ORCHIDS.—There was a large collection of Orchids offered for sale by auction, at Mr. Stevens's Sale Rooms, King street, Covent Garden, on the 4th inst. There were two parcels, one consisting of East Indian, and the other Brazilian. Among the latter there was a fine specimen of *Cattleya Leopoldii* sold for £1 10s., and other £2 10s. A large mass of *Cattleya amethystina*, £1 10s., and another of the same fetched £1 13s. A *new species* of *Cattleya*, £2. *Lælia purpurata*, £2. Of the East Indian, *Aerides*, *Foxbrush species*, a fine plant, brought £2 17s. 6d., another of the same, £2 8s., and a third £3. *Saccolabium rubrum*, £2 17s 6d., £2 8s., and £2 4s. *Dendrobium aggregatum major*, £1 6s., and £1 2s. *Vanda*, *new species*, with yellow flowers, £2 15s., £1 16s., £1 12s., and £1 10s.—*Ib.*

EDUCATION OF BIRDS BY THEIR PARENTS.—Nothing is more striking than the efforts of the maternal birds to tempt their young to make the first experiment of trusting themselves to their wings. The nightingale flutters around her nest holding an insect in her bill at a little distance to draw her young to the edge of the nest and to incite them through their appetite to make the first effort with their wings. The Iceland driver offers a still more striking spectacle of maternal solicitude. The bird builds its nest on the steepest summits of the mountains near the shores of the sea. As soon as her young are fledged, she ceases to bring them food. But she continues to visit them, to flutter about the nest, to show them the power of her wings, and to invite them to follow her. The younger bird, oppressed by hunger, approaches the edge of the precipice, hesitates, and finally falls into the air. Its wings are too small to sustain it, and it would dash upon the rocks below. The mother summons the aid of the male. They spread their wings in concert a little beneath their young, to allow free play to their wings. Thus they gently let the bird down to the shore, crowds of their kind assemble round the young bird, and raise cries of congratulation at the view of this new companion, that maternal love has emboldened to the first attempt at flight.

Review.

The World a Workshop; or the Physical Relationship of man to the earth. By Thomas Ewbank, 12 *mo. New York*, 1855.

Mr. Ewbank is a thoughtful and suggestive writer; his work on "Hydraulics and Mechanics" met with less public appreciation than it deserved, perhaps because people generally were not aware that it was very amusing, having popularised his subjects so as to interest the least scientific. It is a book to be read and passed down to ones descendants, as full of facts no less than entertainment.

The present work is much smaller, and assumes more the form of essays upon man and his connection with matter, being designed to prove that our relations to earth have clearly adapted us to labor in the great workshop, designed and literally fitted up for the cultivation and application of chemical and mechanical science as the basis of human development. All, he contends, are workers in and modifiers of matter. To man, in common with the rest, a task is given which, if fully understood, would place in a new and a better light this much abused orb of ours. It is the opinion of many that decay has seized its vitals, that its resources are approaching exhaustion, and the arts their climax; but our author strenuously and sensibly contends that in reality it is a spring of physical truths which man can never run dry. Chemistry and Physics, as the exponents of inorganic bodies, and Botany and Zoology of the organic, will pour, and continue to pour forth new elements, combinations, forms, forces, and motions. We have had pleasing illustrations of this in our own day, which, so far from inducing fear of the font failing, are prophetic of its fulness.

What then, he asks, was it that so conspicuously was to mark man's connection with the earth, and more than anything else proclaim him lord or lessee of it? It was the character he was to assume as a *Manipulator of matter*. The earth was to be a manufactory

and he a manufacturer. It was to furnish him with unwrought material, while the sounds of his implements acting upon it were to swell till their reverberations rolled over the globe. The materials are placed in so accessible a manner that they are, all ready for use. Iron and copper are not made in large mountains, or if they are he can scarcely use them, witness the masses of the latter on Lake Superior which it has required all his ingenuity and contrivance to remove, whereas in the form of ores as most generally found throughout the world, they are within the means given him to work. If all the rich materials so lavishly scattered everywhere, the most useful the most abundant, if they are indispensable to him and yet useless till manipulated, it must needs follow that the earth was designed for a Factory. If it were wholly vegetable, it would be a Farm; if its products were objects ready for use, a Bazaar. But almost the whole is mineral —inert, unshapen, and unwrought, while even animal and vegetable substances require elaboration.

In the pursuit of truths to enforce his argument, Mr. Ewbank is sometimes extremely happy and generally perfectly lucid, but the theory which he is working out with such enthusiasm, occasionally leads him beyond his subject into the realms of abstruse speculation, where however, it is not unpleasant to follow. Geology is considered with reference to the production of materials for the wants of man; the chapter on "the arrangement of the earth's materials in strata" will arrest the reader; that on fire is new and curious; the adaptations of things in the matter of fire, with a view to keep it in human hands, small as they seem, have a bearing on the general economy of the world; the conditions necessary to the evolution of a spark by friction and to nourish it into flame, are such as to prevent any serious results from natural abraisions. Had the necessary amount or intensity of friction been double what it is, man had made but little use of fire, perhaps, to this day. Had it been less than it is, we might scarcely have known wood as a fuel, since nature might then have acted the part of an incendiary, and fired it as fast as it grew, The verge of danger is approached nearer in hot than in cold climates, and yet we find that where vegetation is parched like stubble, the air glowing as in an oven, resins oozing out of some trees, and heat and inflammability impressed on all, the violent collision of trees with trees, and stems with stems, inflames neither the reed swamps of India, nor the corn brakes of America, the pitch pines of the North, nor the unctuous boles of equinoctial regions, so nice are the adjustments that prevent in such cases ignition. If it were not for these the world would be in constant danger; the tread of an elephant or buffalo's foot on dry reeds and grass, or the rushing of their bodies through jungles, would fire them. Were the amount of friction required to produce fire less than it is, great care would be indispensable in threshing and stacking grain and even in working it. Indeed, as things are, the line between artificial attrition that produces fire and natural attrition that does not, is so fine as to excite wonder that a barrier so frail should be so powerful in preventing conflagrations. But the adaptations and adjustments of everything in this wonderful workshop to the work, are everywhere, and abound where least suspected.

As in the case of metals, timber is provided in manageable masses. The size of trees is adapted for human, not Cyclopean artisans. Had they generally approached the Gigantic Sequoia what could have been done with them — with logs, one of which laid along the pavement of some streets, would fill them to the roofs of three-story houses! The difficulty of felling, transporting, handling, and slitting such into beams or into boards, would have been seriously embarrassing, whereas the most useful trees are never too large for easy control, rarely exceeding four feet in diameter, and a fair average

would give from fifteen to eighteen inches nearly. The Mahogany tree is remarkable for its magnitude, and yet the largest recorded log was only seventeen feet long by fifty-four and sixty-four inches.

Another feature of the world's timber is—the heaviest woods are not found in the largest bolls, but generally in the smallest, a provision that vastly facilitates man's control over them. Fir is only as heavy as oak, while ebony, lignum-vitæ, and box are rather shrubs than trees. Hickory is rarely seen a foot in diameter, and exceedingly few sticks of Rosewood are met with as large. Thus the largest trees are light and easily worked. Had they been light and porous as the cork tree, or heavy and dense as lignum-vitæ they had been of comparatively little use to man. But we are ordained to be elaborators in wood as well as in the metals; and hence the facilities for its acquisition, its varieties of masses, properties and adaptations.

Had the nature of minerals been such as to admit of the labour of man in their preparation, it had certainly been required of him, but the processes of their formation are so slow, that had the tenure of his life extended into centuries, he could not have biassed their development. But the producing powers of vegetation are so active as to induce greater changes in a day than do those that form minerals in a thousand years, so that he has every opportunity to impress himself on them.

But is it his duty and has he the power? undoubtedly; although it may be there are some who think he cannot meddle with nature's works without marring them. A great mistake. In this department she produces nothing absolutely perfect without him, and she will not. Designed for a nursery, it requires nurserymen. Forests and praries are at large, what neglected farms are in little. They cover the ground with things growing rank and wild, and choking each other; they are what he himself is before being drawn out of the jungles of ignorance and improved by cultivation. The principles at work, and the soil they work on are at his service; but like tools in a machinists shop, their profitable employment rests with himself. They will cover his fields with wheat and fill his gardens with fruit, if he so wills, by properly exciting them. If he fold his arms in indolence, they will expend themselves in weeds; superior fruits will never be produced without work joined to intelligence; spontaneous growth shows the working of nature's agencies, but not their perfect working; that is left for man to bring out.

Such is an outline of our author's views, often in his own words; as we observed in the commencement, they are suggestive to thinking minds, and we wish we had the opportunity of presenting the little volume to thousands.

EDITOR'S TABLE.

LETTERS FROM THE EDITOR, No. 2.

ROCKBRIDGE ALUM SPRINGS, *Aug.*, 1855.

MY DEAR HORTICULTURIST:—A great wit said once, in a letter to a lady, "Correspondences are like small clothes before the invention of suspenders, it is impossible to keep them up." I do not find it so, for I have much that I should like to communicate in this way, but as I am to find on my return a large mass of interesting letters from others, it will be safest to confine my own to as short limits as possible.

"The Springs of Virginia" is an indefinite term; they are but little known by Northern health and pleasure-seekers, but when known, will be much patronized and admired by the best classes; and by the best I mean the most appreciative. The Southern character, for affability, kindness, and suavity, is here exhibited in its most attractive colours. From the extreme South, Texas, Louisiana, Alabama, and Mississippi, come the wealthy planters with their families to pass a few months in this delicious mountain climate, in such contrast with their long and heated summer. A few years will see the present numbers greatly increased, for then the time necessary to reach the "White Sulphur," from New Orleans, will be but two days and a half, and from New Nork, the same; so that here will be a central meeting point.

"*The* Springs" are, by general consent, those called the White Sulphur; if you have not seen them you have seen nothing; thither all the fashion and the train of her followers wend their way, to see a most beautiful scene, it is true, but to be badly accommodated, and badly fed and lodged; to be told you pay twelve dollars a week *for the water*, and to be so hungry after dinner as to resort to the restaurant and expend more dollars to satisfy nature's demands.

Eschewing all such imposition, and still in the search of the fountain of youth, our little party looked about for a conveyance which would take us leisurely through the "circle of Springs," and set us down at the Rockbridge Alum, not far from the famous Natural Bridge. A conveyance was at last discovered, which had stood out in the open air, exposed to the sun and rains, apparently ever since the decadence of some first family, who had parted with it about the time of the presidency of Mr. Jefferson.

I wish, my dear H., I could give you a picture of this vehiculum and its appurtenances; it was the only one to be had, and we concluded to give it a trial, abandoning any idea of making a favorable sensation on our arrival at fashionable quarters. It had been originally strongly built to traverse these rough mountain roads, but had been so often disabled, that I am very sure it would have been mobbed in Philadelphia or New York. Overturned, the doors had been mended outside with sheet iron, which was now terribly rusty; the glass in one door was entirely gone; the other was cracked, and would moreover, not pull up; the curtains had seen no oil or grease for many a long year, and

scarcely reached half-way to the buttons; unlike the wit's small clothes, the difficulty was to keep them *down*; this was accomplished by white thongs; the roof leaked sadly, but the civil white driver, who was son to a farmer, and had a fancy for driving and frequenting the nine-pin allies, "reckoned" it would not rain for the few days he engaged to keep us on the road! In twenty-four hours he made a sudden descent from his perch, the bottom of which fell out, but he borrowed a saw of the eccentric Colonel Crow, repaired the seat with a plank, and "reckoned" it was as good as ever. The rack behind was a "wrack" indeed, and let the baggage down into the mud and streams. The wheels had been *bespoked* so frequently as to have double the usual amount of timber in them. You would not *willingly* have made your *entre* into Broadway or Chestnut Street thus; but it was better than full stages and the uncertainty of getting even these, and thus we journeyed to the Salt Sulphur and onwards.

At this beautiful spot, where the planting and laying out of the grounds have been neatly done, we found every accommodation and comfort; at the "Red Sulphur" we had met mostly consumptive patients whose sad complaints, at least many of them, were improving; here the scene was less depressing. Good company and gay seemed disposed for enjoyment and repose; the table was attractive and even clean and elegant; the water less esteemed, perhaps, for its curative properties than some others, but still possessing qualities in which many place great confidence. The number assembled here was about the same as at the Red, not more than one hundred and sixty, while the White, near by, with its numerous discomforts and its fashion, counted little less than one thousand; and loaded stages were arriving every hour, the inmates fully informed that there was no accommodation, but determined to say they had been to the "White Sulphur Springs;" such is the force of fashion!

Our vehicle, shabby as it was, was received with respect, and if I am rightly informed, presented about as respectable an aspect to the mountaineers as that of a former President, who travelled in one no better, and with four horses immensely inferior to ours. The bad roads, and certainly, in many places, none could be much worse, and "I reckon it will do" carries the day for every species of carelessness. *

The trees that have most attracted attention, are the Magnolia acuminata, the Kentucky Coffee tree, Sugar Maple, Ohio Buckeye, and White Oak; apples were very abundant; peaches and melons as poor as they could be; we should not consider the former good enough to make into pies, but here they were eagerly bought and eaten; black and whortleberries were the only table fruits. At the Salt Sulphur you will taste your first good butter; that it is to be had there, proves that it can be made in the mountains, and you will be puzzled to know why it is not more general. The visitors here strike us as remarkably well after the hospital look at our first residence; the attendants are of a better class; the landlord most respectable, and altogether a stay at the Salt might be prolonged with satisfaction, for the summer months.

Maple sugar constitutes a considerable article of manufacture and traffic, in Western Virginia; a "sugar orchard" is still a valued possession, and the beautiful tree assumes hereaway its most beautiful form. The product of a single one is estimated from three to ten pounds, and even more, where the limbs are abundant and the age sufficient. What a provision for man in his earlier stages of civilization is the "sugar tree!" A bushel of sap makes a pound of sugar; that the withdrawal of ten or more bushels every

* At one of the Springs, there was not a corkscrew on the premises. The mode of liberating a liquid was to bore through the cork with an old rusty gimlet, and pouring out as you do your ink. Other deficiencies were still more striking and inconvenient.

spring does no injury to the tree, shows emphatically, that it was placed there for a wise purpose—an extra to be employed for man's benefit.

Our inspection of the "Sweet Springs," the "Red Sweet," and "Hot," was brief, but sufficient to satisfy us that the first two possessed great attractions for visitors; the baths named are very great curiosities, and delightful for use. The "Hot" is less attractive, and being occupied nearly exclusively by invalids, fashion frequents it not, and they do say there are extra modes of squeezing your pockets; but unquestionably great cures have been effected. On this subject, as we progress, all learn a curious feature of the "Virginia Springs;" at each one they have a celebrated case ready to inflict upon every willing hearer. At each, a man arrived once upon a time, who was so ill that he was carried on a bed from the stage and deposited in the hotel; this remarkable man (sometimes he is a woman), weighed, on arrival, exactly eighty-four pounds, most probably bed clothes and all, as he was too ill to be separated from them. For a time he was worse (which is a universal symptom), but in two weeks walked; in three ate everything he came across, and in four weeks exactly, had a bloom on one cheek; in five this symptom extended to the other, and in six he sold his crutches and started on a pedestrian excursion after the deer, that are abundant all through the mountains. This case is patent to the landlord, his bookkeeper, and the "resident physician," at all the Springs, and before we got to the "Rockbridge Alum" we felt quite interested in him, hoping sometime to catch up with the individual. Probably we did so, for we saw numbers of lazy-looking fellows, whose sole occupation was hunting. The sick man must greatly prefer deer-stalking to being par-boiled and starved by Dr. Goode, at the "Hot," or drenched with sulphur and alum every where he went. He weighed, when he started for the mountains, one hundred and thirty-nine pounds, a great increase for six weeks; beyond doubt he is destined for immortality, and his story will be repeated at every Spring to every open-mouthed visitor; he richly deserves the epithet of "the old man of the mountain." The Doctor here began to tell me of this remarkable cure, but I requested him to desist, as I had seen the scales in which he was weighed on every piazza where we stopped, forming one of the daily amusements of young and old, thick and thin.

One of the great charms of a mountain summer residence is the absence of insects; we have not seen a single caterpillar's nest or spider's web in this part of Virginia; flies and mosquitoes, &c., are of the rarest; probably the nights are too cold, for very often in August we have had fires.

Venison is an abundant article on the tables; but so thoroughly are the deer now harried by dogs everywhere, that it is by no means what it used to be; an old resident declares, that the deer are kept so constantly on the alarm that they have not time to get fat. Much more attention to the vegetable garden would be useful and profitable to the proprietors of most of the Springs.

Various as are the virtues of the different Springs, their properties are well established, and a knowledge of their peculiarities is widely spread throughout the Southern States, while Northern people know comparatively little of them. Even our physicians give them too often the cold shoulder, probably because they know not their value; Northern visitors are among the rarest exhibitions at all these important places. This should not be; we may hope that when the rail roads have brought Boston and New Orleans into closer contact, the inhabitants of our wide republic will here meet and cast off their sectional prejudices. We have had a romantic history, sufficiently so to unite us; we speak (wonderfully alike under the circumstances), the same language; we have the same good intentions to benefit the condition of man; a separation *for a crotchet* would

throw back the destinies of our race for centuries; despots would exult; the hopeful would despair; the history of the world would all have to be gone over again, and the elysium in which we have been brought up would be followed by wars and rumours of wars; military despotisms would result, and the white man, no less than the colored, would be enslaved. Avert it, heaven! avert it, *man*, for if it should result, your own arm and your own tongue will have done the desperate deed.

At the "Warm Springs" you will find everything to your mind, and the bathing the most delightful imaginable.

The Rockbridge Alum water, where we leave six hundred guests, is among the most reliable of these wonderful Springs; its value is well understood as an alterative of the system, curing, with perseverence, as it really does, the scrofula, and various intestinal diseases. So much is it esteemed, that the water and its residuum, and the rock itself, from which it trickles, is annually sold for a sum exceeding ten thousand dollars. The proprietors are gentlemen, and they contemplate great improvements, horticultural and ornamental, for the ensuing season. The rail road, next summer, will land you within five miles of the spot; comfortable carriages will then be in readiness.

I have left myself no space to descant upon the romantic ride to Alexandria; by a miracle of engineering you are carried over the Blue-ridge without a tunnel, and enjoy from the "mountain-top," a scene which it is worth a voyage to see.

There must be an end to all things; I bring this with me to be in readiness to provide for the wants, my dear H., of your October number; will you, mean time, look out for a better proof-reader, for I am obliged to conclude my letter with a quotation from one of Sydney Smith's;—"I assure you, that little Jeffery sometimes, leaves the printing in such a state of absolute nonsense as throws me into the coldest of sweats." This you must see to, or I shall be chilled.

If you or your readers desire further accurate information, read "The Virginia Springs; by John J. Moorman, M. D." It is an admirable and reliable guide.

Answers to Correspondents.—"Cultor" says, please give me the names of the enclosed thorns, marked A, B, and of the vine, marked C. In setting out native thorns is it better to sow the seed and set out the young plants thus derived at two years old, or should I go at once this autumn to the road-sides and woods where they abound, select and take up for that purpose, plants already pretty well grown, say five or six feet high? Would plants of that size bear cutting down close to the ground, or die under the operation?

Are young locust trees liable to be depredated on by cattle?

A.—Crategus crus-galli.

B.—C. coccinea.

C.—Ampelopsis hederacea.

It is better, in planting a hedge of thorns, to employ 2 year old plants, because when cut down, they shoot forth all with a nearly uniform degree of vigour. Large plants dug from the hedge-rows may do well with great care, but some will probably shoot stronger than others, and a few die entirely, and when a hedge once begins to require patching, it can rarely be made to look well. Thorns seldom come up from seed the first year; and to have to wait 3 or 4 years for your plants is not very agreeable. Nurserymen ought to be able to supply them at from 5 to 10 dollars per thousand; though

through their having been but little demand for them during the few past years, we can scarcely tell in whose establishment they mey be found — Crategus Coccinea does not make a good fence.

Horned cattle will eat locust trees, though not from preference when they can get an abundance of other food. They would be more troublesome to them in hot weather, by endeavouring to rid themselves of flies, by rubbing against their branches, if there are no woods already in your vicinity to afford them that protection, by which many trees would be trodden down and destroyed. Would it not be better to endeavour to raise a hedge of Osage Orange or Honey Locust, around the lot, before planting. If a ditch or trench could be thrown out first it might protect the hedge a little.

Mumford asks, what descriptions of fruit are best adapted to be grown in Iowa, whither he designs to remove and enter upon the nursery business.

The apple succeeds admirably in Iowa, and is the staple crop. Peaches, Plums, Morello, and Duke cherries, the native grape, and in many districts pears, such as the Bartlett, Vergalieu, Stevens' Genesee, Bloodgood, Tyson, &c., &c. In short, he will find a demand for most good fruits that succeed in his present home.

Geo. W. Fardich, Indiana.—We have written to inform you where the seed required can be purchased. There is no separate book on the cultivation of hedges at present.

D. N. If your apple orchard does not succeed under the treatment mentioned, give up the trees and try another set, *or* try an experiment for a year or two without other crops around them; but better still, lay on a heavy deposit of stable manure, this fall, previously digging in a peck of charcoal and a peck of lime to each tree.

B. is informed that though the Holly may not succeed in his hyperborean region it does very well elsewhere.

John W. Paine. We do not repudiate the Chinese Arbor Vitæ entirely, as a hedge plant, though the American is so superior as always to be preferred. All hedges should be trimmed *twice* a year, as recommended in the August number. See Michaux's Sylva.

Cultor. Live stock of no description should be permitted in a lawn where there are evergreens. Sheep, tethered, or kept from the plants by hurdles, are admissible; a wire fence will keep them from nibbling. In the English parks there is what is called the browsing line; deer eat the leaves as high as they can reach.

C. H. S. desires to plant, this fall, an orchard of pears, with a view to profit, and being a novice would like a good list of standards for a good mellow top soil, with a sandy loam beneath. He does not wish trees that bear small crops, or many, the fruit of which would require to be ripened in the house; also, he asks the most desirable manure to be used at the time of planting; and whether the wild rose would make a good hedge.

The following are good fruit, productive and free-growing: Bartlett, Duchess d' Angouleme, Glout Morceau, Paradise d' Automne, Vicar of Winkfield, Andrews, Louise Bonne de Jersey, White Doyenne, and Lawrence; the latter may be packed in barrels like apples. All pears should ripen in the house, to be perfect in flavor. Give a good dressing of barn-yard manure, plough it under and follow with a subsoil plough, if not over the whole, at least for a breadth of ten feet under the rows of trees. Dig out holes 5 feet diameter and 18 in. in depth, throw the subsoil aside and plant with the surface mould, first mixing it with superphosphate of lime, using a spade-full to each tree. A little lime and spent ashes, will also be very useful occasionally. Guano water is much used for small orchards, applied when the fruit is swelling.

We have no experience with the wild rose as a hedge plant, and doubt its applicability for such a purpose.

Architecture. We may inform W. that arrangements are now perfected to give a new series of designs for rural houses; next month we shall insert a portrait of one just such as he suggests he is in search of.

Keeping Sweet Potatoes, &c.—C. W., of Fairhaven, Kentucky, will find that Sweet Potatoes may be kept till April, by packing them when dry, carefully, and without the *slightest bruise* in barrels. Place the barrels with the heads loose, in a kitchen or an equally *dry* and moderately warm room. If any symptoms of decay are observed, sort them over carefully and remove the injured potatoes. We keep them in this way with entire success until spring. There are no monthly or weekly papers devoted to architecture exclusively.

Advertisements.—We have handed over to the publisher the advertisements of Richard E. Fahnestock, and of J. H. Watts, to which we ask attention.

Apples.—We are glad to hear from J. H. Watts, of Rochester, New York, and to learn that apples, the Northern Spy and Red Canada especially, will be uncommonly fine this season. We shall not object to "the ripe specimens" at the proper time. It is gratifying to know that there must be fruit enough this year for all to partake—an abundance and variety, and at prices which no other country can approach.

To Dress Salads.—Mr. Chorlton has given in previous pages the true mode of raising Salads, but our "Table" would not be complete without Sydney's Smith's receipt to dress them. His daughter quotes him, saying:

"But our forte in the culinary line is our salads; I pique myself on our salads. Saba always dresses them after my recipe. I have put it in verse. Taste it, and, if you like it, I will give it to you. I was not aware how much it had contributed to my reputation, till I met Lady ——, at Bowood, who begged to be introduced to me, saying she had so long wished to know me. I was of course highly flattered, till she added, 'For, Mr. Smith, I have heard so much of your recipe for salads, that I was most anxious to obtain it from you.' Such, and so various are the sources of fame!

"To make this condiment, your poet begs
The pounded yellow of two hard-boil'd eggs;
Two boil'd potatoes, passed the kitchen sieve,
Smoothness and softness to the salad give.
Let onion atoms lurk within the bowl,
And, half-suspected, animate the whole.
Of mordant mustard add a single spoon,
Distrust the condiment that bites so soon;
But deem it not, thou man of herbs, a fault,
To add a double quantity of salt.
And, lastly, o'er the flavor'd compound toss
A magic soupcon of anchovy sauce.
Oh, green and glorious! Oh, herbaceous treat!
'Twould tempt the dying anchovite to eat:
Back to the world he'd turn his fleeting soul
And plunge his fingers in the salad bowl!
Serenely full, the epicure would say,
Fate cannot harm me, I have dined to-day."

The Fountains at the Crystal Palace, England, are nearly ready for exhibition. They comprise what are distinguished as the great cascades, and associated with which are the vast double series of circular jets, the centre plume of which will ascend to a height of two hundred and fifty feet. Heretofore, the highest fountain in the world was at Chatsworth, but it rose *only* to the height of 180 feet.

The Produce of a Single Pea.—Last Spring, Mr. McIntyre of Northampton, Mass., planted a small pea which he took from a lot of Western corn. It produced five main stalks full six feet in height. From these there were twenty-five other stalks averaging three feet in length, and from these there were other branches, so that the length of the whole was full 150 feet. The vines bore 212 pods, which produced 906 peas, averaging nearly 4¼ to each pod.

Peppermint in Michigan.—The Detroit (Mich.,) *Democrat* says: "There is more peppermint grown in St. Joseph county, Michigan, than in any other locality in the Union. It is the staple product of one town. The oil is extracted and sold at $4,50 per pound. An acre will yield from fifteen to twenty pounds, making a very profitable crop."

Fish.—The Ohio *Farmer*, published at Cleveland, Ohio, has commenced a series of articles, detailing the experiments of two physicians of that place, on the propagation and rearing of fish artificially. The speckled trout, (*Salmo fontinalis*,) has been successfully operated on. The details are similar to the French method, but popularly treated; these gentlemen will have the merit of introducing the art among us.

The Ohio Agricultural College has been permanently located at Cleveland, under favorable auspices.

The Scientific American, published in New York, commenced its ninth volume on the 15th of September last. This periodical has, as it deserves to have, a good reputation and a large circle of readers. It is altogether creditable to the age and our country; and its success is a proof among a thousand others of the increased education of our people; the *Scientific American* is read here by a class of intelligent working men, whose compeers abroad never see anything of the kind worth perusal. Success to all such enterprises. Munn & Company, 128 Fulton street, New York, are the publishers, (weekly,) at two dollars per annum.

Acknowledgements.—From William O. Shearer, of Philadelphia, large and fine seedling peaches from a city garden, well worthy of name; we shall call them the "Shearer peach."

From a friend on Staten Island, grapes and peaches of extraordinary beauty and flavor, showing very superior cultivation.

The *Brinkle* grape from Mr. Raabe, promises to be a great acquisition, and is one of several seedlings which probably are to revolutionize our grape culture. The specimens were scarcely ripe; when completely so, they will surpass we think, the Isabella and probably all our present esteemed natives.

J. S. H., Delaware.—Remarkably fine specimens of Bartlett and Washington pears.

Mrs. J.—The finest Seckle Pears we have seen for several years.

From Dr. Brinkle, the Philadelphia Pear from the original tree.

Mrs. Lawrence, of Ealing Park, England, well known for her horticultural fetes and stove cultivation, died in August last.

Curculio.—It is stated that Mr. John Brush, of Brooklyn, N. Y., has saved the plums on a number of trees, the present season, by binding bunches of tansy upon the limbs, in several places. The fruit upon the trees thus treated ripened to perfection, while that near by, not thus protected, was entirely destroyed by the insects.

Try it by all means, and everything that "promises well." For ourselves, the only plums saved this season from the arch destroyer have been a few sewed up in millinet!

Charcoal.—As an illustration of the sanitary powers of charcoal, and of the extraordinary energy with which it acts upon the gases, thus furnishing a new power for removing the agents of disease, &c., Dr. Stenhouse has exhibited in London, a machine showing extraordinary deodorizing and disinfecting powers. An atmosphere rendered highly offensive by putrefactive decomposition going on within the chamber in which it is confined, is drawn through charcoal filters, by means of a rotating fan machine, and is passed into an apartment adjoining. Although this air is disgustingly fœtid, it flows out into the room perfectly free from smell. This experiment, though it exhibits no new property of the charcoal, places the fact in a strong light, and may lead to most important usefulness.

The Lawton Blackberry.—The following testimony regarding this fruit is from a New York paper, of the first week of September. Here is another fruit making its appearance in the market:

"We have before us a specimen of the fifth week of the picking of these berries: and Mr. Lawton states that he thinks they will hold out three weeks longer. At present there is no sign of failure or diminution in size, which is certainly remarkable, and so is the prolificness of the variety. The fruit is picked and sent in every day, and sold wholesale at one dollar a gallon, and retailed at $1,25, without half supplying the demand. The fact is with this as with all other first-rate fruit, this market cannot easily be overstocked."

Pears and Locusts.—It is a curious fact that old trees of the Butter pear, which previous to the last appearance of the locusts, had year after year produced worse and worse fruit, until at last it was nothing but knots, are now returning to health and vigor: the pears this season partake of their old character, though still inferior to those formerly produced. We saw these trees dug around just previous to the last appearance of the seventeen-year locusts, and witnessed the fact that the roots were infested with thousands of these insects approaching their perfect state; they were hanging to the rootlets to which they had attached themselves as thick as sucking-pigs, and no doubt took from the tree the nourishment intended for itself. Here is a suggestive fact. As the locusts came up, every effort was used to destroy them, as well as those which flew from neighboring gardens, in order to prevent similar future depredations. We might wish that this discovery by a lady of Germantown, Miss Margaretta Morris, an enthusiastic and discriminating naturalist, should be turned to practical account. No doubt the larvæ are now attacking again the roots of millions of fruit trees, which will depreciate till they are liberated from these merciless suckers.

ROCHESTER, N. Y., *August* 29, 1855.

I have this day received from Mr. John Loughry, of Adams county, Ohio, on the Ohio river, a basket of the most magnificent peaches I have seen in many a year. *Oldmixon Cling*, and *Crawford's Late Melocton*, some of which measured 10 inches in circumference. These peaches give positive evidence of two things: first, that southern Ohio is one of the finest peach districts in the Union, and second that Mr. L. is a thorough cultivator. He says in his note to me, that he has fruits which commanded 25 to 100 per cent above the market price in Cincinnati, and that their superiority was due to careful pruning, thinning and culture of the trees.

Another thing worthy the attention of fruit growers and consumers too, is, that these peaches were transported from the southern line of Ohio to Rochester, several hundreds of miles within the past 36 hours, and are now on my table as fresh and handsome as if they had been just picked from a tree in my garden. This all shows what can be done and will be done.

I was in New York city a few days ago, and the thousands of bushels of peaches I saw landed in the morning from Jersey, were mere trash. Five dollars per basket was asked for tolerable fair sized and fair looking peaches, $2 for middling, and $1,25 for the very rubbish. Much of the peach culture in New Jersey orchards is of the worst description, and unless a new set of cultivators take the field, Jersey peaches will become a by-word.

I know the season has not been altogether propitious, but the defective culture is the main source of the evil—this has been obvious for many years. The peach trees here that we had almost given up as dead, never looked better, and are preparing to give us an abundant crop next year, provided the mercury dont fall to 26° below 0. B.

[When will our fruit farmers learn that it is their interest to take more care of their fruit trees? The same complaint of depreciation in the quality of our market peaches is all but universal in Philadelphia. A few old kinds are occasionally to be purchased of tolerable quality, but as a rule, the peach crop is decidedly inferior to what it ought to be; careless culture, and sometimes a selection of kinds to produce the greatest quantity, regardless of quality, are the sole causes. How much certain "fruit books" have contributed to this, both in peaches and other articles, we shall sometime examine; it has been recommended by some to select one kind of fruit for yourselves, and another "for market," because it *looks better* or produces a greater amount of saleable product. This is wrong; let us always have *the best*, even at a little advance of price.—ED.]

GARDENIA LANDRETHII.—In looking over the list of articles in the *Horticulturist*, exhibited at the meeting of the Pennsylvania Horticultural Society in July last, I find it stated that a flower of Gardenia Fortunii was exhibited by me; it was not a flower of G. Fortunii, but of G. Landrethii, a variety I have known for sixteen or eighteen years, and when first put under my care, was said to be a seedling of Mr. Landreth's; now if not identical with it, it is certainly equal to G. Fortunii; I have frequently seen flowers on it equal to an ordinary sized double white camelia. Yours, WILLIAM GINTON,

Gardener to Dr. JAS. RUSH, Philadelphia.

SENSITIVE PLANTS.—M. Leclerc, of Tours, finds in sensitive plants not only a nervous but a muscular system. The muscles are placed in the irritable portions of the plants, and are tuberculous and moniliform in their structure; one set connected with the nutrition, the other with the life of the plant.

WINTER PARSLEY.—Our neighbor Mr. Wm. Saunders offers the following valuable hint on winter Parsley. This useful herb is much in demand in the culinary department, especially is it so during winter when everything *green* is at a premium. A good supply may be had by planting a glassed frame and protecting it from severe frosts. Those who have the convenience of a greenhouse, or grapery will find the following a desirable method of cultivating a sufficient quantity of roots.

Procure an old flour barrel and pierce the sides of it with holes 1 inch in diameter and about 9 inches apart. Three or more holes should also be made in the bottom for the escape of water. Prepare a quantity of light loamy soil, mixed with a portion of well rotted manure or decayed leaves, and commence filling the barrel by placing three inches of oyster shells, or any other convenient material for drainage; over this place a turf to prevent the earthy particles from mixing with it. Then fill in enough soil to bring a level with the first circle of holes, draw the roots of the plants through from the outside, all but the tops. Proceed in a similar manner until the barrel is filled, then plant the top, when finely grown it is an ornamental object, as well as a useful one. Although an old system, I had never seen it practised, and my first attempt was almost a failure. I found a difficulty in keeping the soil properly moistened, on account of the numerous holes on the sides through which the water escaped without penetrating to the centre. This I remedied by building a perpendicular drain in the centre of the barrel. Having provided a quantity of small pieces of brick, and charcoal I placed a cylindrical tin tube (an old quart measure minus the handle and bottom) in the centre on top of the drainage, and filled it with these materials, drawing it up and filling again as the planting proceeded. This had the desired effect and allowed an equal distribution of moisture through the soil.

Young plants raised from seed the preceding spring are best; secure all the roots and trim in the leaves close when planted. The stronger and more luxuriant the plants are before winter the better will be the supply. The month of September will be early enough to plant, and the barrel should be kept fully exposed and regularly watered until taken into the house before frost.

APHIS BRUSH.—The manufacturers in England are always on the alert to supply unsupplied wants; even the Aphis must have a brush to destroy his life. From an advertisement in the *Gardener's Chronicle*, we copy the portrait of this instrument, "invented by the Rev. E. S. Bull, which in a very simple and easy manner, instantly cleanses the rose from that destructive insect, the Green Fly or Aphis, without causing the slightest injury to the bud or foliage. Price 2s. 6d."

ROSES.—The London *Cottage Gardener* gives a preference to *General Jaqueminot*, a hybrid perpetual, as "the best high colored rose ever exhibited. *Paul Ricaut, Duchess of Norfolk*, and the *Geant des Batailles*," it says, "must yield to it."

THE AUGUSTA ROSE.—I infer from reading your last Magazine that you may not have succeeded very well with the Augusta Rose. I have succeeded so well with one which I have, that I thought you might be interested to see a specimen of the rose in their different states of development from the bud to the full blown rose. I have accordingly enclosed to you what I regard the finest which I have. Though not as large as the Cloth of Gold it is more fragrant, and, what is more desirable, it is much longer expanding from the bud to a full blown rose, than any rose which I have ever seen. I have had it put out some 11 months. When it was put out it was some 1¼ feet long. It has *two main* stocks, about 7 feet high each, one of which the gardener says would have been 10 feet high if he had not headed it down. The lateral branches would average near, or quite, 30 feet long. It had 48 healthy buds, which, from the time they were large enough to be counted until they fall off, will be fully 2½ months. It is on its own root, and, from the hasty description which I have been obliged to make to get the box to you by this morning's express, you will see that it is a strong grower and free bloomer. The beauty and fragrance of the sample which I now send to you will, I think, establish its reputation as one of the most desirable roses which is now known.—I. WASHBURN, *Worcester*.

This letter of Mr. Washburn was mislaid, or it would have appeared before. We are glad to have such good evidence of the character of this rose, which has been the cause of much discussion among cultivators. Such testimony as that of Mr. Washburn and Mr. Rivers is sufficient to show the difference between the Augusta and Solfatare, which by many rose fanciers have been considered identical.

[We publish the foregoing, from Hovey's Magazine of last month, with pleasure, but it must be noted that there is a difference of opinion about the Augusta Rose; many think a comparison with the Solfatare shows it to be identical; it appears that many do not think so, and having been unfortunate with our specimen we shall leave the subject where it is for the present.—ED.]

THE GINKO.—Salisburia adiantifolia, is one of the largest forest trees in China. The fruit has somewhat the appearance of an almond, and is much esteemed by the Chinese.

TO THE EDITOR:—I notice that in the August number of the *Horticulturist*, you have adopted Don's derivation of the genus *adlumia* from *ad lumino*, to fringe with purple. Rafinesque, whose rage for making new genera was even greater than his sagacity—and he was no mean botanist—gave no clue to the name in the paper in which he founded this genus; and Don's derivation is a mere guess at what he thought would explain it. There is no doubt however about the name being given in honor of Adlum, one of the first large vine growers of the United States. This happy method of commemorating genius and industry, will preserve for ages names that would otherwise have been long since sunk into oblivion. When such men as our own Darlington, Torrey and Gray, as Bartram, and Marshall, and Colden, receive the honors, we can all applaud the distinction. What a pretty thought to have a commemorative garden. Sir James Edward has forestalled the name in his *Smithia*, or we might have a niche* in this floral Temple of Fame for the Editor of the *Horticulturist*.

A RAMBLER IN THE WOODS.

*Instead of a *niche* only, why not have a mile of plants in the temple, so that all "the genus" might be commemorated. *Note*—It is no longer considered fashionable to remark upon names, else we should observe that a scientific writer in the Ohio *Farmer*, and a good writer he is, was named by his parents, Theodatus Garlick, and that some body of the learned have added M. D. to it; we have too in Philadelphia a Dr. Toothaker.

New Garden Pot.—The following account of a new kind of garden pot appears in the *Revue Horticole*. An English amateur, Mr. Keir, residing in Paris, has contrived a method by which the branches of trees can be more conveniently layered than heretofore. Pots with a slit on one side have been long in use; but difficulty has been found in their use out of doors, on account of the want of any good means of securing them in a fixed position or at any desired height. Mr. Keir proposes to make such pots with a tubular projection on one side (*a b*) through which a staff may pass, and, being driven into the ground, hold the pot perfectly steady.

The adjoining cut explains at a glance the nature of the invention. In forming such a pot, it is said that the potter must take care that the slit *c* is so small as just to allow the branch *d* to pass in without leaving room for the earth to slip out. But this precaution seems needless; for it would be easy to prevent the earth slipping by means of pebbles or crocks applied to the slit after the branch is inserted, and as the pot is being filled with earth.

Large Plums.—The Farm Journal says:—"One of our neighbors was recently showing us a specimen of his *fruit orchard in Philadelphia*, only a few feet square, attached to his dwelling, which illustrates how much can be done in a small space. They were Coe's Golden Drop Plums of extraordinary size and beauty, one of them weighing two and a half ounces—a luxury even to look on, to say nothing of the eating qualities, which of this variety are well known to be unsurpassed. We have often observed the superior quality of fruit grown in our city gardens, particularly pears and plums. The comparative freedom of the latter, in the city, from the curculio, is no doubt partly owing to the pavements admitting no harbor for their eggs, which are destroyed with the punctured plums when dropped. We know of a case where air-slaked lime was applied once a week, early in the morning, by dusting it over three plum trees. Adjoining were three other plum trees, equally loaded with fruit, to which the lime was not applied. In the latter, the plums were stung and all dropped off; in the other case they ripened and perfected all their fruit. What has become of Matthews' remedy for the curculio? Are not the committee prepared to report?"

The Strawberry "Sir Harry."—This new berry has received much attention of late in England and France. One of our correspondents says he "has never eaten anything so delicious. It is equally well adapted to forcing as to open ground cultivation. It was raised by a Mr. Underhill, near Edgbaston. In flavor, size and color, it is said to surpass Keen's Seedling, British Queen, or any other variety, and is a prodigious bearer." Have any of our amateurs or gardeners received it?

Alexander Crosse, Esq., died, recently, at his residence, near Bridgewater, England, aged more than seventy. This gentleman has long been a great lover of scientific research, and will be remembered for the commotion he made by claiming to be a modern Prometheus, having, as he believed, *created* an insect by the aid of galvanism! The insect was an Acarus, or Mite, and has since been proved to have been hatched from an egg deposited on the mineral submitted to the galvanic action.

Iowa.—A correspondent of a Western paper says: "For health, Iowa will compare favorably with the Western States. But few marshes or little wet land is to be found in her territory, but what have sufficient drainage. Her streams have well-defined banks and rapid currents. Water power for driving machinery is abundant. The coal field embraces about one half the territory of the State. Having a position favorable to commerce, possessing a good climate, a good soil, easy of access, and well watered, a rapidly increasing population of industrious, intelligent men, Iowa is destined at no late day to occupy a permanent place among her sister States. Her institutions of learning, her thriving towns and busy cities, fields of waving grain and cattle upon a thousand hills, with a stirring population of near half a million, attest her present prosperity and future greatness."

Year Book of Agriculture.—Childs & Peterson, of Philadelphia, propose to publish in October, of each year, an Annual of Agricultural Progress and Discovery, to be edited by David A. Wells. We like this project, and we think the farmers of the country will like it. For six years past, Mr. Wells has issued an 'Annual of Scientific Discovery,' which is admirably gotten up, and we doubt not he is capable of doing justice to this new project.

One Grain of Oats is declared in one of our exchanges to have produced the astonishing number of 4,751 grains, all carefully counted!—See the *Farmer's Friend.*

Nuttall's Sylva.—In a hasty glance at my copy of Nuttall, with which I am greatly pleased, I see doubts expressed at page 44 of volume 3, whether the Rhodendron Maximum and Kalmia Latifolia are found in Maine.

You may be assured that both grow here; the latter near the line which divides this town from Buxton; the Rhododendron Maximum in the towns of Sanford in York county, and Standish in Cumberland county, on the borders of Seliago lake; whether in other localities or not I cannot say. S. L. Goodall, *Saco, Me.*

Fuchsias with White Corollas, are amongst the novelties of the day. The following kinds have been announced for sale in England.

Snowdrop, Mrs. Storey, Queen Victoria, Prince Albert, Empress Eugenie, Lady of the Lake, Raffaelle, and Water Nymph.

Query.—*To Builders and Others.*—Are the cells of Anchorites, do you think, hermitically sealed?—*Punch.*

Phlox.—The Charming new Phlox Leptodachylon *Californicum*, the *Phlox Speciosum* of Pursh is in great favor at the English exhibitions.

Catalogues, Pamphlets, &c., on our Table.

A perfect shower of periodicals, books, &c., &c., occupy our table:—viz:

MISCELLANEOUS.

A Circular, showing briefly the Necessity, Effects, Practice and Profit of Land Drainage.—Wilmington, Del.

Agricultural papers have long labored to disseminate the true theory of drainage among us, and probably they have convinced many farmers of its great importance. Another step is necessary: tiles for the purpose must be made abundant and reasonably cheap, and farmers must be told where they can procure them without too much cost. One example is worth a hundred descriptions; so that every person who demonstrates to his neighbors the value of drainage—to his neighbors does a positive good. This has been done in various places; the tiles are now sold at most agricultural warehouses, but they do not afford the vender a large profit, and you must *ask* for them, and perhaps meet with discouragement in procuring them; it is well therefore to go to head-quarters for a bulky article of little interest to the storekeepers. A letter with a stamp enclosed to John S. Hilles, Wilmington, Delaware, will procure this valuable pamphlet, and the tiles can be had from the same gentleman.

Address delivered before the Philadelphia County Medical Society. By Thomas F. Betton, M. D., President of the Society.

Characterized by his usual correctness of style and argument, and containing some home-truths, that coming from a regular graduate and extensive and popular practitioner, ought to sink deep into the minds of Trustees and Professors of Universities.

Report of the Pennsylvania Hospital for the Insane. By Thomas S. Kirkbride, M. D., Physician to the Institution.

A succinct account of one of the most ably conducted institutions in the Union. Dr. Kirkbride's reports are always satisfactory and to the point.

Catalogue of the Annual Exhibition of the Pennsylvania Academy of the Fine Arts. Philadelphia.

The members of this institution are earnest in their endeavors to disseminate a taste for the fine arts, and so far deserve our praise. Their expenditures are liberal, and their collection consequently extensive. We wish them every success.

Catalogue of Pure Red Short Horns, owned by B. & C. S. Haines, Elizabethtown, N. J.

This catalogue of valuable stock has been printed at considerable expense, and contains portraits and genealogies of great interest. It may be had on application to the proprietors.

Annual Review of the Commerce, Manufactures, Public and Private Improvements of Chicago, with a notice of the System of Railroads, and a Topographical View of the City and Vicinity, with reference to its capacity for Drainage, and the adaptation of its soil to the growth of vegetables and fruits.

This curious pamphlet we shall forward to one of our European correspondents, who asked us once if we had ever been at Chick-a-go! to show him what Americans can do when they get a chance at a good "location" for a city. It will astonish him even more than it has us.

Books for the Country.—Published by C. M. Saxton & Co., 152 Fulton street, New York.

Suitable for school, town and private libraries. *Gratis.*

Proceedings of the American Antiquarian Society in Boston, April, 1855.

Neat and valuable.

Catalogue of A. S. Barnes & Co's. Publications.—For gratuitous circulation. New York, 51 John street.

A series of important scientific and school books.

New Jersey Medical Reporter.

A monthly Journal of Medical and Surgical Science. Edited by W. S. Butler, M. D. Burlington, 1855.

Arthur's Patent Air-tight Self-sealing Jars. For sale at 50 South 10th street, Philadelphia.

This mode of sealing from its facility promises much good, and beyond doubt is the best invention for preserving fruits yet introduced. It in fact makes easy what was previously just so difficult as to deter private families from the enjoyment of preserved fruits and vegetables, at periods when they are out of season.

The Rabbit Fancier.—By C. W. Bement. New York: C. M. Saxton & Co.

The fancy for rabbits, lop-eared and others, has just taken hold of a large number, and this work is well timed.

CATALOGUES OF FLORISTS AND NURSERYMEN.

Prince's Special Supplementary Catalogue of Bulbous and Tuberous Roots, and of other new and rare species, comprising the most choice and splendid varieties. Linnaen Botanic Garden and Nurseries, Flushing, New York.

William R. Prince, of the veteran Nurseries at Flushing, issues the *forty-first* edition of a list that comprises much that is desirable to amateurs, and informs us by private letter that he wishes to dispose of whole acres of ornamental trees and plants which the encroachments of builders compel him to sell. Here is a fine opportunity for persons beginning business or laying out extensive grounds.

B. M. Watson's price list of stocks, select fruit and ornamental trees, shrubs, climbers, roses, grape-vines, strawberries, dahlias, bulbs, bedding and green-house plants for 1855. *Old Colony Nurseries, Plymouth, Mass.*

This list is valuable, as giving an account of each description of fruit and flowers, time of ripening and blooming, and we have not the least doubt from the character of the catalogue, that the articles can be relied on.

Wholesale Catalogue of the Syracuse Nurseries, for the Autumn of 1855, *and Spring of* 1856. *Thorp, Smith, Hanchett & Co., Syracuse, New York.*

This is a sheet catalogue of valuable and important trees and plants, for sale in quantities by these enterprising gentlemen, which it will be well for purchasers to consult.

Select list of florists, flowers, consisting of roses, dahlias, verbenas, fuschias, geraniums, salvias, chrysanthemums, &c.

Cultivated and sold by P. R. Freeoff, Auburn, New York.—This forms a valuable list of a great variety of especial favorites, which all lovers of a garden are purchasers of.

Premiums and Regulations for the third annual Fair of the Illinois State Agricultural Society, at Chicago.

Tompkins County Horticultural Society. Premiums, exhibitions, constitution, &c. Ithica, 1855.

Thomas Meehan's Catalogue of his Germantown, Penna., Nurseries, with a select list of new or rare plants, seeds, &c.

Horticultural Exhibitions.

The Twenty-seventh Annual Exhibition of the Pennsylvania Horticultural Society, was held in Philadelphia on the 11th, 12th, and 13th of September. As no hall could be found large enough to accommodate the Society, the City Councils of Philadelphia very liberally granted them the use of one of the Public Squares, and in it the Society have made one of the most brilliant displays our city has ever witnessed. The whole square was covered with canvas tents and marquees, so as entirely to cover the trees growing in it—while to prevent any injury to the public property, the whole surface of the ground was planked over; gas and water were introduced at great expense, and every effort made to render the exhibition worthy of our Horticultural farmers. That the exertions of the Society were eminently successful, was attested by the continuous streams of human beings that poured in and out during the whole period of three days and evenings. It was estimated by good judges that not less than 30,000 persons must have attended the Fair.

All that we can do in this place to interest the general reader, is to give a few notes of anything that strikes us as novel or interesting.

A specimen of *Nymphæa Cerulea*, a water plant with blue flowers about 6 inches across, was very attractive. It is of very easy culture, and does well in the open air in summer—a leaf of the Victoria Regia was placed near it, but no flower. The pretty Bouvardia longiflora, seen here for the first time, gives promise of being a valuable introduction. It has large white flowers, in size, shape, and odor, resembling the common Jessamine. Weigela, or rather Diervilla amabilis, was also in flower; this, though something like D. japonica, (W. rosea,) will always be prized for its constant blooming property. Begonia umbilicata, a very pretty individual of the herbaceous section, with brilliant scarlet vermillion flowers, and leaves pretty much of the same hue. Eranthemum leuco-nervum, not exactly new, but very striking by its white veined foliage. Coleus Blumeii, though now rather common in Philadelphia collections, was much admired for its finely variegated foliage, as also were Tillandsia Zebrina, Hydrangea hortensis variegata, Echites nutans, Dioscorea variegata, Maranta vittata, and M. albo-lineata. In the same class of variegated plants, we saw for the first time, Aphelandra Leopoldii, a stove plant, and very pretty. The competition for the best twenty specimens of plants in pots, was very brisk; there being no less than six entries, besides the exhibitors in the class of 12 and 6.

The Allamandas were in most collections, showing how popular they are with plant-growers. Stignaphyllon ciliceturn, Begona Xanthina, Bouvardia Leiantha, the Clerodendrons and Mannettias, also seem to be employed extensively to make good displays.

The display of Dahlias was very good, but the exhibitors having named their flowers on loose strips of paper, which every little breeze carried around the tents, they lost much of their interest with the fanciers.

The Orchideous plants were not as numerous this season as they have been in former years. Odontaglossum grande, was the best present, and is one of the very finest ærial orchids grown.

A collection of China Asters exhibited, was the theme of universal admiration. The poor "Queen Margaret's" have fallen into something like neglect with cultivators, during the past few years; such fine specimens as these go far to resuscitate them.

The fruit department was as usual with our Society's exhibitors, brilliantly sustained. Amongst the novelties, we noticed fine specimens of the Philadelphia pear, for it is a rarity now with us; good specimens of the white Doyenne or Butter pear. Some pine apples grown in pots were exhibited, one of which of the Providence variety, was said to weigh 8 1-2 pounds. There were also a great many grapes exhibited in the pots in which they were grown, each specimen having on about six fair sized bunches, well illustrating the convenience and economy of this mode of cultivation.

The vegetables were in the greatest profusion, but though of the best possible specimens of culture, presented no especial novelty calling for notice in this place.

Fruit Grower's Society of Western New York.—The first annual exhibition of this Society was held at Buffalo on the 13th and 14th of September. Members were in attendance from a considerable number of the twenty-three counties embraced within its limits, and a rich and select collection of fruits, many of them new and rare, were exhibited on the tables. Several competent persons gave it as their opinion for extent and variety, this exhibition has never before been equalled in the State.

The report of the proceedings reached us one day too late to appear this month.

The Philadelphia County Agricultural Exhibition, held two weeks since, was very successful. The show of cattle, agricultural implements, &c., was creditable to all concerned. We noticed some fine fruit.

The New Jersey State Exhibition at Camden, followed close upon the above. The horses, cattle, implements and fruits, all marked decided progress. The arrangements, as well as those here, were on a liberal scale.

Pennsylvania Horticultural Society.—At the last stated meeting of the Society, Mr. E. W. Keyser in the chair, no premiums being provided by the schedule, no displays were presented.

The Society had the gratification to inspect a new plant, to which the Committee called the attention of the Society, from Caleb Cope's garden, the *Billbergia thaysifolia;* also a fine collection of cut seedling Dahlias, by Gerhard Schmitz.

The Reports of the Committees for awarding premiums at the 27th Exhibition, held on Penn Square, were submitted and acted upon.

On motion, ordered, that the thanks of the Society be tendered to the City Councils for their most liberal permission of using S. E. division of Penn Square, for the 27th Autumnal Exhibition.

On motion, Resolved, That the thanks of the Society are due to Mr. C. P. Fox, for the tender of his lot at the corner of 16th and Market streets, for holding our Autumnal Exhibition on.

Letters of invitation from several Societies to attend their exhibitions were read.

Mr. F. Trowbridge advertises this month, Cranberry Plants of the bell or egg-shaped variety. See our advertising sheet.

The Season.—It has been a busy month with our friends, both Horticultural and Agricultural, and October promises to be no less stirring. From every quarter the happy note of the rewarded laborer has reached us. Had we been divided into numerous parts, it would have been impossible to have been present at all the fetes and exhibitions to which the kindest invitations and "complimentary tickets" have held out inducements to travel, from the famous affairs at Chicago and Boston, where we may yet find it possible to be, to he Agricultural and Horticultural Meetings, North, South, East and West. Correspondents and special reporters will aid us, we trust, in presenting an early abstract of proceedings, and always if possible, with point and brevity. With such a season as the past, we are reminded of the lines of Milton:—

> "Wherefore did nature pour her bounties forth
> With such a full and unwithdrawing hand,
> Covering the earth with odors, fruits and flocks,
> *But all to please, and sate the curious taste.*"

THE BRANDYWINE CHERRY.

UNIV. OF MICH.

Freight and Passengers on Rail Roads.

A CORRESPONDENT last month related the difficulties often experienced in the transport by railroads of packages of nursery trees. The case stated was a hard one, and not uncommon; it is a matter that requires immediate redress; we have no doubt when it is properly brought before the respective boards of management, they will give directions to their agents to sin no more. But this will not be sufficient to insure the proper care, if we may judge by what is daily seen on some of the most prosperous lines.

That railroad travel and transportation is yet in its infancy in America, must be true, for we cannot believe that a civilized people will forever bear the hardships which are imposed upon them by an irresponsible body of subordinate agents, (of course we do not intend to assert that there are no exceptions to this general condemnation—every traveller will remember some; we speak of the mass—of those left in authority, while those who appointed them are out of the way,) to whose unblushing wilfulness, travellers and freight are constantly subjected. Duties are performed in a slovenly, careless manner; freight and baggage are treated as if utterly worthless, or as a nuisance, and hence the necessity of employing sub-agents or expresses, at a greatly increased cost. This is the case in the ocean steamers, the railroads, and the steamboats on our lakes and rivers. It would seem at the first sight of our heterogeneous methods of getting about—the pushing and jostling, the impertinence and deceptions of hack-men, cab-drivers, and most of the employed about our modern systems, that the human freight was looked upon as a drove of cattle. We cannot always submit to this.

Remedy must come by degrees; stockholders must be impressed with the need of electing men as directors, who will attend to their duties; for this purpose they must not seek the wealthiest holder of stock, and ask him to merely fill a chair at the meetings and declare dividends; they must begin at the other end, and choose men who will see that dividends are earned. You should enter a railway car with as much certainty of cleanliness, civility, and safety, as when sitting down to your own table; if the present prices of travel are not sufficient to accomplish this, and to accomplish it thoroughly, *raise the prices.* Freight should be delivered with the certainty of a well-conducted post-office; till this is done, railroad profits will not meet the expectations of stockowners. Thousands of people now stay at home rather than encounter the numerous inconveniences which are more or less attendant upon every transit; higher prices, we say, by all means, and more comfort; better pay to

officials, every rope in order, the wheels inspected and greased at every stop, the cars clean, windows washed, a certainty of safety by years of impunity, and there is no telling the profits that would result.

The luxurious "sittings" of some Continental rail-cars would astonish our easily satisfied citizens, no less than it would gratify them. In Belgium, the works are owned by government; the employed have the badge of government, and if anything is amiss in their conduct, government corrects it; this cannot be here, but it is in our power to have a government of active and intelligent directors, paid for attending to the working of the road, and who are to be found when anything goes wrong, instead of being at their distant country seats, or engaged in business of their own, so large as to allow little time to that of others, who are thus subjected to inconvenience, untold discomforts, and death. It is a good practice in many insurance offices, banks, &c., &c., in London, that each director receives a guinea for a daily attendance at the office, to see after the company affairs; absent at the appointed hour he forfeits his pay.

Let us suppose that this practice prevailed in railway organizations, and that five dollars a day each, or more if necessary, was paid to a number of Directors on a given route, provided they could prove that one at least was on the spot at the arrival and departure of every train at every station on the road, prepared to see that the time-tables were adhered to, *and to hear complaints*. There cannot be a doubt, that with well chosen men, the economy to the company would be immense. Sharks of all kinds, lurking about under any guise, would be detected. As it is now, when a man breakfasts in Massachusetts, dines in Pennsylvania, and lodges in Virginia, there is no authority to hear what he is subjected to, but on the contrary, it seems to be everybody's business to be out of the way; the traveller is soon out of hearing, and the consequence is that every official does just as pleases himself.

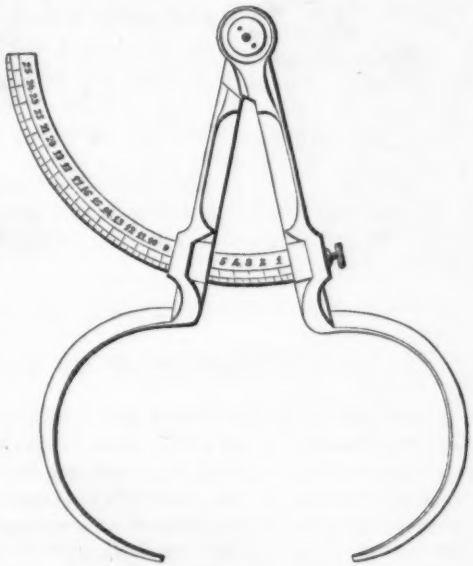
These paid Directors would be of a superior class; to them appeals of all kinds could be made, and if not redressed they would be removed; they could inspect the character of the freight, designate the perishable, and if there was a preference necessary by reason of a surplus, order it forward, *and see that it went*, or be themselves responsible.

There must and will be more attention paid to the public by these monopolies, for such they are apt to become by reason of their privileges, and till there is, good people, and those who value their lives and limbs, *will stay at home as much as possible*, have little to do with the murderous affairs, and risk no perishable freight on them when they can avoid it. We hope to live to see at least the same attention to the interests and comforts of those who employ railroads, as is paid by an individual to the customers who support him. Why is it otherwise?

ALABAMA *vs.* TURKEY.—The Mobile (Ala.) Advertiser states that figs can be grown and dried in Alabama, which, in two years' time, will equal, if not surpass the best imported qualities.

DIACARPOMETER, OR INSTRUMENT FOR MEASURING THE DIAMETER OF FRUITS, ETC.

This instrument resembles, to a certain degree, that known in the mechanical arts under the name of callipers, but it differs from it materially in other particulars, which render it more adapted to the uses for which it is designed. It is 0·18 in height, and from 0·12 to 14 in breadth. It can measure objects of the smallest dimensions as well as those of a diameter of 0·25, within one millimetre, which is sufficiently exact for all the practical purposes of horticulture. It is composed, like the ordinary compasses, of two brass legs, 0·10 in length, united by a rule joint, and which terminate in the curved steel branches, the points of woich meet accurately when the instrument is closed. A graduated quadrant is fixed by a screw to the right brass leg, passing through a fenestrum in the left leg, which can thus slide over this arc, until it is arrested at any point desired by means of a thumb-screw. The divisions on the quadrant indicate correctly the separation of the legs of the instrument, or rather the linear distance between their steel points. In order to measure a fruit, the legs are to be separated until the opposite points rub on its greatest diameter, the graduated scale then marks the extent of this separation, which is the diameter of the fruit. In the same way its height can be measured.



It will readily be seen that, in addition to measuring the diameter of fruits, the diacarpometer may be applied to many other uses in horticulture: one of which, as recommended by its ingenious inventor, M. Abel de la Farge, member of the agricultural committee of Saless, is the determination of annular incisions in trees.

It will thus be perceived that the diacarpometer is not a fancy instrument, intended only for amateurs and dilettanti, but is destined to a practical and daily use in horticulture, to give more accuracy, grace, and elegance to the labours of the gardener, and at the same time afford more exact results than have hitherto been obtained in the exercise of this agreeable employment.—*A. Remy, in Revue Hort.*

BRANDYWINE CHERRY.*

BY W. D. BRINKLE, M. D.

SIZE, above medium, $\frac{3}{4}$ of an inch long, $\frac{13}{16}$ wide, $\frac{11}{16}$ thick; *form*, broad heart shaped; *skin*, brilliant crimson, beautifully mottled and highly polished; *stalk*, $1\frac{1}{2}$ inches long, slender, inserted in a small shallow depression; *stone*, $\frac{7}{16}$ of an inch long, $\frac{5}{16}$ wide, $\frac{3}{8}$ thick; *flesh*, semi-diaphanous, tender, very juicy; *flavor*, saccharine, refreshing, and fine, with just enough sub acid flavor to impart sprightliness; *quality*, "very good;" *maturity*, last of June.

History, &c.—The Brandywine is a native of Delaware. It originated near Wilmington with my brother, Jno. R. Brinckle, from a seed of the White Bigarreau grown near the May-Duke. This fine and beautiful variety fruited for the first time in 1851.

VEGETATION OF PANAMA.

A correspondent of the Ohio Farmer, who is employed by the Government as Geologist and Naturalist to the Pacific Coast Survey, has conveyed to his readers a better account of the vegetation of Panama than the majority of travellers have been able to report, as the following interesting matter will show:—

FRUITS.—And now for the fruits. There are Oranges, large, greenish, yellow, thin skinned, juicy and sweet; Limes, which are small; round, green lemons; Lemons like our own; Bananas in the greatest profusion; and the Plantain, a large coarse Banana, which needs to be cooked before it is eaten, to be palatable. The Pine Apples are of the size of the largest we get, bright orange yellow, and delicious, not fibrous nor acid; they can be eaten with a spoon, and require no sugar.

THE MANGO.—The famous Mango, considered the finest fruit of the tropics, resembles a pear so closely that almost every one would say they were pears, if brought to our market. They are about two and a half inches long, a litte flattened, and evidently attached to the stem by what we should call the blossom end; smooth externally, and when green, of a dark, shining green; within it is of a deep yellow, and until ripe, has a disageeable terebinthine tase. It contains a stem like a large, flattened almond. When ripe, the color changes to bright yellow, streaked with crimson, precisely resembling some luscious, sun-ripened pear. On removing or biting through the skin of a ripe one, you find within, a pulpy substance, resembling in consistence the paw paw, and flavored with all the good and rich tastes in the world. One could hardly eat so many as of our good, honest, simply flavored pears; but the mango is certainly delicious.

THE AVOCADO.—It is also like a pear in shape, but large, rough and *dark* green externally, has also a stone and pulp; but its flavor is neutral—to my taste, a little flat; but is highly esteemed for a breakfast fruit.

* see Frontispiece.

Sugar Cane.—Beside these, I saw on trees a large number of fruits, which are said to be excellent but I had no opportunity to taste them. But I must not, in speaking of fruits, omit to mention the sugar cane, which was voted by all our party to be the most invaluable discovery we thirsty travellers made on the Isthmus. It certainly is very palatable and very refreshing, a piece of it being better than a glass of ice-water to allay thirst.

The Bamboo.—I did not, for a long time, recognize the bamboo, it has so many leaves and branches. It is the very beau ideal of flexile grace—some of them fifty feet high, and scarcely larger than one's arm.

Lilies.—Among the most beautiful flowering plants were two lilies, the one white, the other yellow, growing in the marshes near Aspinwall, and equalling in beauty any of the lily tribe.

Creepers.—There were many creepers, also, having the same general character with the trumpet creeper, but with flowers larger, and much more delicate, of white, yellow, and blue. One of the finest shrubs was from five to ten feet high, with large, dark, shining leaves, eighteen inches long, by six wide, springing from the stalk in verticles of four, and having around their petioles a compact mass of flowers, which seemed, at a distance, of the deepest crimson, but, on closer examination, I found that it was the calyx, which was large, and fleshy, and beautifully crimson, while from it issued a tubular flower of the most delicate straw-color. These are set in clusters ten inches in diameter, around the axils of every whorl of leaves.

Passion Flower.—I saw one species of passion flower, very magnificent, six inches in diameter, almost globular in form, so filled up by an immense number of stamens.

Sensitive plants.—Near Gatun, the ground was thickly covered with the sensitive plant, precisely the same species which we cultivate.

Panama.—Plants clamber up every wall of masonry, burst in masses on every ledge, spread over and possess the tiled roofs, wreathe chaplets and crowns on ruined towers, and hang in festoons from every port hole of the bastion. They seem hanging out banners, and raising triumphal arches, to celebrate their victorious conquests over all that man has dared to oppose to their existence, in this, their natural unlimited empire.

FRUITS.

BY J. H. WATTS, ROCHESTER, N. Y.

Rochester, N. Y., so justly renowned for its gardens and fine fruits, is becoming supplied with rare varieties, and it occurred to me that a memorandum kept of kinds not familiarly known, might be the means of inducing cultivators and amateurs to try those which are here mentioned, of apples ripe in *August*.

"Summer Rose," "Benoni," "Summer Queen," and "Early Joe," are first rate to our taste, and when well grown a great luxury. Of those nearly ripe now, (13th September,") the "Hawley," and "St. Lawrence," are excellent. There are few better, and although we would like some of your "Sops of Wine," we are quite content with the two above mentioned.

The "Summer Pearmain" will soon be with us; it is a very fine apple. We have just cut a "Duchine of Oldenburg," a beautiful sample, and found it a pleasant,

tart apple, juicy and melting. The "Alexander" is now in market, a very showy, red striped fruit, and fine for cooking.

Pears.—Ripe in August, the "Osband's Summer Virgeul," a native of New York, is a most estimable companion, and although sure to *blink* when ripened in the sun, its modesty is overcome on a familiar acquaintance.

The "Beurr Giffart," ripe in August and first of September, is a superb fruit, and we are glad to have made its acquaintance; every one planting out the *least* number of trees should have it; its juicy and vinous flavor is refreshing. "Dearborne's Seedling"—what a pity any objection is made to it. Its small size does not disqualify it from being a *choice morceau.* If size constitutes merit, where would the "Seckel" appear, and who would exclude it from the lists—not a vote could be had to do *that.* "Julienne," a small, but juicy and pleasant pear we have admired, and the "Summer Franc Real," is a condiment such as all lovers of fruit will be sure to have.

The Bartlett Pear!! ah! here we have a noble representative of a famous fruit; grown on the quince stock, how excellent they are. To pick them early and put aside to ripen, and occasionally look in upon them to withdraw one once in a while, so beautifully colored with their red cheeks, is a pleasure we are willing to wait a whole year for.

"Swan's Orange, or Onondago," this season bids fair, and will ripen in all of September; when well grown, it is all Mr. HOVEY has claimed for it; we admire its large, showy, vinous blush, and it is very juicy.

We are looking forward for the "Sheldon," the prince of all pears. They are rare, and a great lover of fruit here has monopolized all that is yet grown to any extent. The only blame possibly to be attached to our friend is, that he gets *too* many of the good *pears,* the "Sheldon" I mean; and others can only have them in thought—but the good time will come when they will be plenty.

"Flemish Beauty," well named. We know of a tree of this variety, in the garden of L. FARRAR, (who grows a great deal of fruit,) which is worth a trip from Philadelphia to see. It is a large pyramid, beautifully shaped, and hangs full of *beauties.* We wish thousands might look at it.

COST AND PROFITS OF AN APPLE ORCHARD.—A. PREBLE, of Lincoln Co., Maine, makes the following estimate, which will be nearly correct in all good apple regions, allowing for some variation in prices:

One hundred trees planted on an acre of land will cost, on an average, $25. The land should be kept in a state of cultivation whilst the trees are coming into bearing. About $25 expended in care and labor, besides the crops taken from the land, will bring them into a bearing state. When an acre of trees is in its prime it will average 400 bushels per annum, provided the land is kept rich and loose, and the trees well managed. Average price, 66 cents per bushel. Our surplus apples are valuable for all kinds of stock, particularly to winter store-hogs. Sweet apples are worth about as much as potatoes.

WHEN AND HOW TO PLANT TREES.

BY WILLIAM SAUNDERS, LANDSCAPE GARDENER, GERMANTOWN, PA.

PERHAPS some of your readers may think that enough has been written upon this subject, especially those that are aware of the amount of valuable information that has of late years been given through the cultural press, but when we consider that thousands are annually directing their attention for the first time to rural affairs, who have never read a page on the subject, and that there is still much to be learned even by the most experienced; interchange of observations and ideas is a necessary stimulus for our mutual advantage, as well as proving highly beneficial to all who need instruction.

Many experienced and successful cultivators are deterred, or at all events excuse themselves for not giving publicity to their knowledge, on the grounds that they cannot offer anything new, but the record of experience and facts is always valuable, as corroborative of good or bad results. It is indeed difficult to offer new principles, for even with the unquestionable advantages derived from chemistry, and the physiological investigations of scientific men, during the last twenty years, we have not much improved in tree culture over our forefathers. In a work now before me, bearing date 1785, the whole process of rearing, planting, and managing trees is treated as clearly, concisely, and in as practical a manner as can be offered now. In his introductory remarks, the author is equally to the point; he says, "We beg to caution the planter in the strongest terms against a want of spirit. A slovenly planter ranks among the most extravagant order of slovens; the labor, the plants, and the ground are thrown away. We therefore advise all such as have not industry, spirit and perseverance to go through with what they undertake, to let it alone; and we recommend to such as are possessed of these valuable qualifications, to begin upon a small scale and let their operations increase with their experience.

"Whilst, however, we caution against entering prematurely upon the business of planting, we cannot refrain from mentioning the pleasures which result from it. How rational, and to a contemplative mind how delightful, to observe the operations of nature; to trace her in every stage, from the seed to the perfected plant, and, from beneath the leaf stalk of this, through the flower buds, the flower, and the seed vessel, to the seed again. Man must be employed, and how more agreeably than in conversing with nature, and in seeing her works, assisted by his own hands, rising into perfection.

"Nor do we mean to hold out pleasure alone as an inducement to planting, its profits are great, when properly executed, and this idea adds solidity to the enjoy-

ment. Pleasure alone may satiate; but profit and pleasure united, seldom fail in producing a lasting gratification.

"There is another incitement to planting which alone has been held out as a sufficient inducement. We are sorry to confess however, that we know too much of mankind to believe that *patriotism*, unaided by personal interest, will ever produce a supply of timber for marine or other national purposes. Far be it from us, however fashionable it may be, to speak irreverently of patriotism—we consider it as the noblest attribute of the human mind. Young men, to whom we more particularly address ourselves, are seldom without some share of it, and we flatter ourselves that this virtuous principle, assisted by the pleasure, the profit, and the popularity which attends planting, will induce the young men of the present age to study and practise it, not more for themselves than for future generations."

The practical advice in the body of the book, shows very conclusively, that however much we have gained in knowledge with regard to the principles of cultivation, our improvement in practice has been very trifling.

The most fitting season for transplanting trees, has long been one of the "vexed questions" in Horticulture. Difference of opinion with regard to successful cultivation, could, in most cases perhaps, be reconciled, were the whole facts and circumstances connected with them clearly produced. But these are items difficult to obtain.

The influencing agents of vegetation are subject to such a vast variety of modifications, which can neither be foreseen nor prevented, that no single observation, however truthfully expounded, will suffice as a guide for the establishment of definite rules.

Reasoning on theory alone, we are led to the conclusion that autumn is the best time to remove trees. A plant cannot be taken out of the ground without necessarily injuring its roots more or less. In consequence thereof, of thus destroying the balance that existed between the branches and roots, the latter are not able to support the stem, and this decrease in power will be proportionate to the extent of mutilation the roots have received.

But there are certain seasons when the roots are less important to the life of a plant. They are most essential when the tree is in full foliage and vigorous growth, and their destruction at this period would speedily show diminished growth. When the leaves have fallen, perspiration is less active, and the roots are not so important. It is thus evident that the proper time to plant is between the fall of the leaves in autumn, and the bursting of the buds into growth in spring, or, during what is termed the dormant season. Now, a tree is as completely dormant immediately on the fall of the leaves as at any other period, unless perhaps during severe frosts; the sooner therefore the roots are disturbed after this change, the longer time will be given them to repair the injury, and heal over at the wounded parts before the cessation of root growth.

There is another circumstance that I have long considered as influencing the season of planting, viz: the relative temperature of the atmosphere and the soil. Some years ago I took daily readings of two thermometers, one being buried eigh-

teen inches in the soil, and the other hanging four feet above the surface. In the month of October, the soil avervged 10 degrees warmer than the air, a condition most favorable for newly planted trees; the increased heat of the soil over that of the atmosphere tending to the formation of roots, the branches being in a colder and less excitable medium remain comparatively inactive, and the plant recovers to a certain extent the balance destroyed in the loss of roots by removal. On the other hand, the temperature of the atmosphere and the soil in spring is completely reversed, the former increasing rapidly in heat while the soil absorbs warmth slowly, the branches are thus excited in advance of the roots, leaves are produced which increases the evil by exhausting the plant, which as yet has no roots to supply that demand; hence we frequently observe spring-planted trees coming out into leaf, and be in apparent health, wither up suddenly under the influence of a few bright, warm days.

Further advantages might be claimed in favor of fall-planting, on account of the superior hygrometrical state of the air, which in general contains more moisture than during early spring months, when we frequently experience dry, piercing winds, highly destructive to the roots of plants subject to its influence.

The disadvantages of fall-planting may now be considered. In the first place, unless it is done early to allow a new root formation before frost, no gain can be derived from it. In this locality, from the first to the middle of October is the period. Large trees that can be removed and planted at once, may very safely be operated upon as soon as the leaves change color. This I consider the *best* time for such removals. Then again, should the ground to be planted contain much water, it will soon become cold, not only retarding root growth, but endangering the life of the tree during the inactive winter season. Further, should we have high winds in spring, with the thermometer in the neighborhood of zero, as occurred for several successive days last March, the plants will be dried up or the buds destroyed. I have this day, (August 25th,) examined trees planted the middle of last October, which have not produced a single leaf so far this season, the bark is quite fresh and green, but the buds are all destroyed. Even those that have grown are making slow progress, compared with others in the same situation that were planted last April.

Some kinds are more hardy than others; I have always found the Peach, Apple, Quince, and Pear on Quince, among fruit, and the Maples, Poplars, Willows, &c., among ornamental trees, succeed best in spring-planting; while the Cherry, Plum, and Pear, Oaks, Hickories, Walnuts, Chesnuts, &c., are more generally successful, when moved in autumn.

These remarks apply so far to deciduous trees. Evergreens should be removed in spring. They may be removed at all seasons with success, if proper care is taken to save most of the roots; the season seems unimportant. I have moved large sized Norway and Hemlock Firs in July, when the ground was baked hard and dry, taking up large balls of earth, and watering thoroughly after planting. I have also seen successful planting on what is termed the frozen-ball system in mid-winter. But

leaving aside specialities, we will find that evergreens removed during the last half of the month of April and on through May, will seldom fail even in the hands of the merest novice in tree-planting.

Evergreens are more liable to be destroyed in winter than deciduous plants. Their foliage presents a large, evaporating surface, which must be supported by roots. The past winter was more than usually severe here; few evergreens that were removed last fall survived, every leaf being stripped of Norway and hemlock spruces, and Arbor-vitæs browned past recovery, while those that I planted the last of May have succeeded almost without a failure.

(To be Continued.)

THE MANGOSTEEN.

We have shown by actual experiment that our climate is superior to that of either England or France for the production of various foreign fruits and vegetables; the Victoria Regia was found to produce larger flowers and leaves than abroad; already the Stanwick Nectarine has fruited in Boston and Philadelphia better than in England or France. The Mangosteen must next be tried by some enterprising cultivator. We find the following in the *Gardeners' Chronicle;* it may prove a stimulus to our fruit growers; the Mangosteen should be tried also at the South:

The opinion of practical men concerning the merit of bringing the Mangosteen fruit to maturity in England, has now been pronounced in the strongest manner possible by the award of the Judges of the Horticultural Society on the 16th, when a Gold Banksian Medal was assigned to the beautiful specimen sent from Syon to Gore House by order of the Duke of Northumberland. We believe there is no other instance of a medal equal in value to the Horticultural Society's Gold Banksian having been awarded to a single fruit, nor could anything have justified so great a departure from custom except the combination of the greatest skill in gardening with results as important as those obtained by the production of fruit like the Mangosteen. Had the Horticultural difficulties been fewer, or the quality of the fruit been below the highest, the advent of the Mangosteen could not have been celebrated in such a manner.

It is not surprising that those who have had no opportunity of tasting this delicious fruit should be incredulous as to its excellence. It is difficult indeed to speak of it without an appearance of exaggeration. Nevertheless it will be found that the statements of every traveler who has written about the Maylay island, assign it the highest place at the dessert; and, so far as our own taste can be trusted, we wholly concur in that opinion. Not to ocupy space with quotations from English works we will merely cite the words of Rumphius, the celebrated Dutch Governor of Amboyna, who speaks of it in these terms: "When ripe the fruit is delicate and agreeably sweet as the finest Lansehs (another famous Malay fruit tree, of which a variety called the *Duku* is the domesticated representation which ought next to engage the attention of the wealthy), and may even be mistaken for ripe Grapes. It is at the same time so juicy, that many people can never

eat enough of it, so delicious is its fragrance and agreeable its sweetness; and it is believed that the sick, when appetite or the power of eating is wholly gone, are nevertheless delighted with this fruit; or at least if they will not take to Mangosteens their case is indeed hopeless."

The question still to be considered is whether — the ducal garden at Syon having proved equal to the ripening this fruit, and its excellent quality having been ascertained beyond dispute — it is likely to engage the attention of others, and to become of importance as a general addition to the dessert.

To this, we think, one answer only can be returned; and that in the affirmative. Now that the great preliminary difficulties are overcome, there should be no more reason for failing in obtaining a crop of Mangosteens than of Peaches; the difference consists in the expense, which however most certainly need not exceed that of a house of Pine Apples.

During a period of 22 years the Dukes of NORTHUMBERLAND have patiently awaited the result of various costly experiments instituted to determine under what conditions the plant can be kept in health, well knowing that in the end it would bear its fruit; for it is as certain as any other fact in natural history, that all trees will do so when they have acquired sufficient age, although the length of time demanded by Nature to produce fertility is uncertain, and varies from species to species. In the course of these experiments it has been ascertained that the conditions necessary to the Mangosteen in a domesticated state are abundance of warmth, moisture, light, and above all FRESH AIR, skilfully regulated, as is described by Mr. JOHN IVISON, the present gardener at Syon, at page 819 of our volume for 1854; where the manner in which FRESH AIR, that most important of all agents, is admitted is fully explained. These conditions anybody can imitate. The difficulty is to obtain fruiting plants, and for these we must look either to supplies in Wardian cases from Penang, or to propagation in this country by cuttings or layers. Perhaps grafting on such stocks as *Xanthochymus pictorius* may also succeed, but it is doubtful whether specimens so obtained will either thrive or "stand." Plants "on their own bottom," as gardeners say, are alone to be trusted. If such could be produced, they will come into bearing immediately, for that maturity of organization which is necessary to the formation of fruit is transmitted by subdivision, along with every other quality.

That the Syon Mangosteen tree has really attained complete vigour, and a power of bearing fruit hereafter regularly, is proved by the fact that the fruits hitherto ripened are perfectly organized. It is true that no seed was found in the fruit that was first gathered; but one lobe had a seed in the third specimen which had been examined, and RUMPHIUS expressly declares that in Amboyna, where it arrives at perfection, usually only one lobe contains a seed, and very often no seed at all is formed.

There is no country within reach of our shores that can produce it naturally; it must always, therefore, be a tender exotic, and confined to the wealthy, as Pine Apples once were. It possesses the valuable property of keeping well and travelling well. That which was shown at the meeting of the Horticultural Society had been gathered several days, and yet proved excellent when opened.

We take the present opportunity of repeating that it is no small triumph to the Duke of NORTHUMBERLAND that his Grace's garden at Syon should be the only one in the world in which Vanilla, Cloves, Nutmegs, Litchis, and Mangosteens have been brought to equal perfection. We do not mean that no one has fruited Vanilla and Litchis except the noble proprietor of Syon: for the first has long ago been produced in other gardens, and the Litchi, ripened formerly in the forcing house of Mr. JOHN KNIGHT, of Lee Castle. What we do say, and what we think is a most striking illustration of what wealth,

inteligence, ank skill may effect, is that all the five important productions we have enumerated were never before brought to perfection in one and the same establishment: unless perchance in some Dutch Island in the Malay Archipelago.

A SUMMER HOUSE.

THE *Horticulturist* has, from time to time, ever since its first number, given occasional designs for ornamental rustic buildings. On looking over the past volumes we find a considerable amount of this kind of illustration, and occasionally in our rides we observe instances of successful imitations of the engravings; an encouragement to continue.

Extremely ornate summer houses are only admissible in a highly finished scene in first class country residences, where the house and all its appurtenances are in a high

style of art; but the modest gardens of suburban amateurs may possess the ornamental objects and rural buildings, as spirited in design and as well proportioned as the more expensive and ornate villa.

We present an original design which may be varied in the construction where expense is an object; the turned posts, for instance, might be supplied by cedar in the rough state; the sawed ornaments around the top may be made by machinery, and the whole filling in, if necessary, may be composed of lath neatly colored.

To a gentleman fond of handling tools, rustic work offers a field of amusement in the winter months, and he may easily form himself into a master builder; with a little exercise of ingenuity, and a good model, effects may be produced that will prove highly ornamental.

The present structure is well adapted for running vines.

THE OSAGE ORANGE AS A HEDGE PLANT.

BY JOHN GAGE, GAGE'S LAKES, ILLINOIS.

J. J. SMITH.—Dear Sir: I have just received the Horticulturist. In the August number, page 346, are some remarks about the Osage Orange so much at variance with my experience here, in Northern Illinois, lat. 42° 20′ north, that I deem it important to notice it.

This great western prairie country, from here to the Rocky Mountains, has not one-fourth timber enough on it to fence it; and it is a matter of vast importance for people to know that there is a plant thoroughly tested that will make a good and cheap hedge.

You say, "This plant" (the Osage Orange,) "has some very good qualities for the purpose," (of a hedge) "but it requires *great* attention—more it has often been found than the generality of busy farmers can afford to give it; if neglected, it runs wild, loses its lower branches, which at the best must be interlaced after the first cuttings, or they will admit the smaller animals. Another disadvantage is that it is a greedy feeder, extends its roots far and wide, and exhausts the crop of its proper food to some distance in the field. * * * Our own opinion is, that in a vast portion of cases the Osage Orange, *without great attention*, will prove a disappointment."

You want the Horticulturist to do as much good and as little harm as possible, and so do I. A good hedge plant *well and generally used*, would be worth millions to this vast prairie country, but it is worth nothing until it is used, and it will require a long time to bring even the best plant into general use; therefore, those who have the public ear should be careful how they throw obstructions in the way of so im-

portant a subject. Had an unknown writer made the discouraging remarks about the Osage that you have, I should not have thought it of much consequence, but

"One blast upon your bugle horn
Was worth five hundred men."

Now, I desire to express my opinion of the plant in this prairie country as far as I have seen it, 300 miles south of Wisconsin, a few miles north of its south line and almost to and across the Mississippi, and I would say of this Osage Orange plant as God said of everything that he had made; and if it is not the plant made for the hedge plant of all this country, I do not know what the plant is. I have made diligent search for the past 8 years for the best hedge plant, have traveled all over the northern states to find it, and I have found nothing that bears any comparison to the Osage Orange. I have seen the famous hedges in New Haven, Springfield, around Boston, &c., made of different kinds of thorn, privet, buckthorn, &c., and almost all were protected by a good fence, and many had a fence both sides to protect them, and I have never seen 100 rods of good hedge fence, except the orange, only around Gardens, and built at great expense; but I have seen many hundred rods of good Osage Orange hedge. I will proceed to contrast my views of the plant with yours. You say "but it requires *great* attention," &c. I planted two miles last year, and have planted eight miles this year; after my ground was prepared, my men set 40 rods a day. I go four or five times over it in the summer with the cultivator, and three or four times with a hoe, enough to keep the weeds down all the time, and after the first year I cut it twice with a scythe; and it takes four or five years to make a fence, costing one days' work for forty rods in planting, as much for cultivating and hoeing as it would cost to hoe a row of corn, and no more; say a half day for cutting and hoeing forty rods yearly, which for five years would be two and a half days, making in all three and a half days for forty rods, at $1 a day would be $3 50. The cost of preparing good dry ground, and the cost of the plants for forty rods would not exceed $4 50, or 20 cents a rod. There is a company here who set out thousands of rods of Osage hedge yearly; they charge 60 cents a rod, but get but little pay down, they guarantee a good fence, and wait for most of the pay till the fence is perfected. It is true that the ground should be well prepared, and all the work well done and in season to make a good hedge row; so it must to make a good row of corn, and there is no more difficulty, and but little more labor, in cultivating the Osage row than the corn row. I agree with you that it is a greedy feeder, but with us it does not "extend its roots far and wide and exaust the crop," &c.; but on the contrary, the roots run right down, growing to twice the size of the stock, and drawing its support from deep down in the earth, and you cannot strike the roots with the plough, and I never saw a sucker grow from it; and further, the lower branches do not want interlacing as you say.

Day before yesterday I was on the grounds of my neighbour Capt. James Moore, who is an intelligent horticulturist, and has sixty rods of Osage Orange hedge that

he planted five years ago. I do not believe that any animal larger than a rat, or smaller than a Camelopard, can get through or over it; the lower branches are so throughly interlaced, clear down to the ground, that you cannot see through it, and I think a snake would be badly scratched before he could get through it. I asked Capt. Moore if he considered it any advantage to interlace the lower branches; he said, "no, that won't do, I interlaced some of mine and found they chafed each other: so I took a bush scythe and cut them all out, and now you see nature has done the work much more perfectly than I could. Well; we walked along the border of his fence thirty rods. First we came to some Isabella grapes the row running down clear into the hedge, the Osage Orange limbs brushing the grape, as the wind moved them about; (we had just read your article,) but we could not see but the grapes were as thrifty, bore as well, and every way as good, as further from the hedge, except not quite as forward: next came strawberries, then sweet potatoes, then nursery trees, all growing clear down to the hedge thriftily, none of them retarded in growth, more than any other green shrub would have done by its shade.

The Osage Orange is much more extensively cultivated in this than any other state. The great scarcity of timber calls for hedges, and the plant was thoroughly tested many years ago by Prof. J. B. TURNER, of Jacksonville, Ill.; and after testing it himself, he wrote about it, talked about it, raised the plants extensively, and spread them all over the state, with thorough instructions for their cultivation; so that we are, or ought to be, well posted in the best manner of raising the Osage Orange hedge. But still there are thousands of men amongst us who are so much afraid of being humbuged, that an article like yours would prevent them from setting the plants, though they could see a perfect hedge by going a few miles.

[Our correspondent is enthusiastic, but omits to observe that in our article on the Osage Orange we said, "probably our western friends can give a different account," and here it is; the ploughing up the roots every year, one part of the attention required, has prevented one of the objections to this plant, which otherwise does extend itself injuriously to the adjoining land in this vicinity.—ED.]

THE CORK TREE.—About a hogshead of acorns of the cork oak have been introduced from the South of Europe, and distributed in the Middle and Southern States for experiment, or to test their adaptation to the climate. This tree, in its native country, where it is an evergreen, usually grows to the height of 20 to 30 feet, but in England there are specimens which exceed 50 feet in height, with a diameter of more than 3 feet. The substance familiarly known to us as cork, is the epidermis, or outer bark and sometimes grows 2 or 3 inches thick. Should the experiment succeed, it will be a subject of great national importance that plantations should be established in various parts of the country for the purpose of growing this useful substance, particularly in the event of a war between this country and Europe, in consequence of which the supply would be cut off.—*Union.*

PRESERVING PLANTS IN WINTER.

BY H. B.

Nothing has more discouraged the cultivation of flowers than the supposed difficulty of preserving them in winter; and as this apparently formidable obstacle disappears as the amateur acquires experience, I shall endeavor to detail some of the methods I have employed, and their successful results. Of course, my remarks are intended for those who garden on a small scale, and who have not greenhouses for winter protection. At the same time, the principles of the treatment about to be described will apply to the largest collections, and may be of service to all whose object is to secure the beauties of the spring and summer from the desolations of winter.

Those whose stock of flowers consists of a few greenhouse plants, which they have cultivated in windows, have a very easy task to perform in protecting their favourites, as far as frost is concerned; for a very small amount of care will suffice when the plants are in a dwelling-house. The temperature of an occupied sitting-room will always be sufficiently high to keep out the frost in the day time, even if the plants are close to the light, and they may easily be removed in the evening to that side of the apartment which is furthest from the window. If the the amateur has a large number of plants (young Pelargoniums, for instance) arranged on shelves close to the window, to remove these would be troublesome, and they may therefore be allowed to remain in their places in ordinary frosty weather, the precaution being taken to interpose the blind between them and the window. I once preserved 200 plants in good health through a severe season, in a room having only one large window, which admitted a good deal of sun. Some of the pots (which were all small 60's) were placed on narrow shelves, ascending to the top of the window, and as near the glass as possible; the others were set on a table. An Arnott stove was lit when required either by very damp or very cold weather; air was given as often as possible; the whole collection was often moved, that light might be equally dispensed, and advantage was taken of mild rains. I succeeded in preserving the whole, without any sickly growth being developed, and was rewarded by having an abundance of strong plants for bedding out in the spring. Most of these were Pelargoniums.

Many plants may be more summarily dealt with. Cactuses and Scarlet Pelargoniums will do well in any dry cellar, provided no water is given them. The latter, when taken up from the flower-garden, I have preserved by shaking off the soil, and hanging them, root upwards, in a shed or coach-housse, from which frost could be excluded. In the srping they were found in full possession of their vital powers, and on being trimmed and potted, mode handsome plants. In all the cases to which I have alluded, it will be seen that care and forethought are the requisites demanded of the amateur. Attention must not be remitted for a day. I have always found that more plants are lost in the winter by damp than by frost. Much water, therefore, must not be given; indeed it should be altogether withheld so long as the plants do not flag. A plant in a moist growing state will yield easily to frost; while, if it had been kept dry and dormant, its powers of resistance would have been great.

But no plan of preserving plants from frost, independent of a greenhouse, is equal to a

well-regulated pit or frame in the open air. I have tried this in various ways and always found it succeed, if properly attended to. At the present time, all my plants intended to be put into the borders next year, or brought into the house, are in a large two-light frame, the management of which I will endeavor to describe. The frame stands about two feet from the ground, sheltered by a south wall, on an exhausted hot-bed, on which Cucumbers were growing in the spring. The mould of this bed having been kept from rain in the early autumn, at the close of October the pots were sunk into it up to the rims. A double light was then put on, by which wet and frost are more effectually excluded, and in the following December the soil around the pots was quite dry. Around the frame long stable dung is piled up about eighteen inches in width, and level with the top. Over the whole an old carpet is thrown when necessary; and I have no apprehension that I shall lose anything if dampness does not defeat my efforts. Every day when it is not frosty, air must be freely admitted, and dead or mildewed leaves must be carefully removed. When frost sets in, two or three extra mats may be laid on, and the whole kept on till a thaw takes place. On no account remove the coverings until at least a day after the frost is gone. This is a very important rule, for the admission of light may be fatal if any of the leaves should be frozen. When plants are found frozen in windows, &c., let them thaw in a dark cellar, and they will often sustain no injury. In this way I have preserved Pelargoniums, Calceolarias, Verbenas, Hydrangeas, &c.; and the freshness of the whole collection after the winter has passed away has always been encouraging. Ordinary greenhouse plants may therefore be preserved by every one during the hardest winter.

THE NEW CHINESE POTATO, OR YAM.

FROM THE MARK LANE EXPRESS.

We have all of us our favorite theories on particular subjects; and there are few people who have not cherished one of their own concerning that precious esculent, the potato, and its mysterious "disease." Having arrived at last at a crop of theories on the subject as multiform as the varieties to which that singular root itself has yielded in the progress of cultivation — and it yields a number from the seed of every plant — the bewildered public will be scarcely less glad of the chance of escaping from it altogether to a new and preferable substitute, than they would be of the actual discovery of a remedy for the formidable disease by which it is afflicted. To the French—who are, next after the Chinese, perhaps the best and most enterprising as, difficulties considered, they are doubtless the most successful gardening husbandmen in the world — we are indebted for the fairest prospect of this refuge from potato famine that has yet been propounded. We would not be ungrateful to the potato, and could not find it in our heart to despise it; and if we are about to relinquish it, diseased or not, we could only consent to renounce the root for a better. Cobbett's rash abhorrence of it was political. He did not understand its history; and we may be allowed to say its history, notwithstanding the amusing anecdotes with which it teems, has always been misunderstood. Thus if the Irish adored, and adore it,

they had the most undoubted right. Turn to any work of general information that we like, the attempt is constantly made to deprive Ireland of the glory of giving the potato to Europe—on its introduction from "Old Virginny," in 1584, by Sir Walter Raleigh—because the name given it by the Spaniards, "battata," is a corruption of some name given it by the inhabitants of Guito; and because we directly derive our name "potato" from that which was applied to a root grown previously in the gardens of Spain and Portugal. Now this is all erroneous. It was a convolvulus—the Spanish sweet potato—which in the beginning of the sixteenth century was introduced into Spain, and cultivated under the Indian name of battata. Old Gerrard, our famous English herbalist, knew this very well, and sets us all right. In 1590 he describes the potato (convolvulus) roots as "common and ordinary meat among Spaniards, Italians, and many other nations; which," says he, "no doubt are of mightie nourishing parts, and so strengthen and comfort nature; whose nutriment is, as it were, a mean between flesh and fruit, though somewhat windy; but being roasted in the embers, they do lose much of their windiness, especially being eaten sopped in wine. Of these roots may be made conserves, no less toothsome, wholesome, and daintie than of the flesh of quinces; and likewise those comfortable and delicate meates called in shops morcelli, plancentulæ, and divers others such like. These roots may serve as a ground whereon the cunning confectioner or sugar-baker may worke and frame many comfortable and delicate conserves and restorative sweetmeats." Even so, Shakespeare—who, by-the-bye, has been noted as ignoring Raleigh and all his works, and never once mentions tobacco, although Ben Jonson often does—makes Falstaff, in allusion to the sweet convolvulus, say, in the "Merry Wives of Windsor"—

"Let it rain potatoes, and hail kissing comfits;"

and it is evident that the connection of the meteorological phenomena thus invoked would be unintelligible with reference to the potato; whilst it is obvious enough, from what Gerrard says, that kissing-comfits and all such sweets were made of the Spanish potato. Evelyn was urged by the Royal Society to treat of their cultivation in his "Sylva," published under its direction; and it is not a little remarkable, in connection with what we are about to mention respecting the new Chinese potato, the probable successor of the Virginian, that he recommended exactly the course which is not found advantageous in the case of the latter, but is nevertheless indicated as the means of rendering the new root most productive, namely, to leave the parent plants in the same spot of ground from year to year, covered up with litter to shield them from the winter's frost, and only abstracting a few tubers for use in the autumn.

Although the calamity which has descended on the heads of these potato-eating millions, by the failure of the root of their dependence, has superadded to the picture a strange phasis of alteration, it would be no product of ordinary pretensions by which we could ever expect to see it superceded. Yet it would be a still greater blessing to Ireland, if a substitute less incident to this alarming casualty could be introduced; for the latest accounts of the 400,000 annual outpourings of the exodus to New York is couched in the prayer of a Transatlantic Hibernian to the *Times*, like that of the French paterfamilias on the increase of his olive branches, "to put a stop to dis," since sickness and destitution threaten their annihilation, even in the land of refuge. Well, the new Chinese potato, or Dioscorea batatas, is alleged to be the substitute required.

This new potato was, several years since, transmitted, along with other useful and promising agricultural plants, by M. de Montigny, who is C nsul for France at the Port of Shanghai, in Northern China. The name which he bestowed upon it was that of Dioscorea japonica; but it has been considered by Professor Decaisne, of the Parisian Museum of Natural History (*Jardin des plantes*), and acknowledged by Professor Lindley and others, that Dioscorea batatas would not only be a more popular and familiar, but a more appropriate name, seeing that although the plant may in its origin be Japanese, of its cultivation in that dark interior we know literally nothing; whilst its culture in the northern parts of China, and in latitudes assimilated to our own in point of climate, being a fact quite accessible in all its details, ought not to be submerged under the name that associates it with the very exclusive territory of Japan. The plant, or rather tuber, is doubtless a Dioscorea, or yam; and yams in general are tropical productions. The various species — D. alata, sativa, and aculeata — yield tubers, which in warm countries are substituted for the potato, and the order is accused of combining with the farinaceous matter existing in its tubers a prevalent acridity, which is sometimes even purgative. Still a few genera are found in temperate climates. Our black bryony, of the English hedge-rows (Tamus communis), is one, though, to be sure, it is no great bargain; for though its fruit is red and succulent, its root is very acrid. Yet all this is nothing. The Solanum tuberosum, our cultivated potato itself, is, it is well known, quite a poisonous plant in a state of nature. Culture may readily ameliorate all this acridity; and if

we can credit all that has been stated in favor of the new importation, has far more than done so. Certain it is that it holds the same place in the North of China, and is found to comprise the same nutritive properties, as the potato in this country. Mr. Henderson, a Devonshire horticulturist, by whom it is introduced amongst us, designates it, in fact, a potato, just because with us ordinary yams cannot be grown except by means of stoves. M. de Montigny has stated that the Chinese, at taking up the crop, set aside all the smaller roots for seed. It is well known that this is a practice now preferred by our market gardeners to cutting large potatoes into sets, simply because they like a juicy set, and find the immature tuber most favorable for their purpose. This is, so far, fortunate in the case of the new potato, admitting, as we shall presently learn, of its rapid and unlimited propagation; for the Chinese place these tubers first in pits or trenches for preservation (and they are said to keep far better than potatoes all the winter, covered with straw and a coating of earth, never losing weight or developing exhaustive shoots); and in spring, being laid out horizontally in beds of prepared mould, they speedily germinate, and send forth long trailing stems, like those of the kidney bean. In six weeks' time the stems attain six feet in length, and are planted out afresh, and layered—that is, the plant is laid lengthwise along a slight furrow, on the top of a ridge, and all except its leaves covered over with earth. Immediately after rain, it begins to take root, or in dry weather is watered until it grows; and in fifteen or twenty days it produces tubers, throwing out at the same time long trailing stems, which are, however, carefully prevented from taking root, and producing a second set of tubers, to the prejudice of the main crop. Sometimes the shoots are simply pegged down, without removal of the plant, over the sides of the ridge on which it grows, at intervals of six or eight inches, and there striking root, throw out tubers. By this means it is stated that immense quantities of roots, of the size of our early kidney potatoes of the garden frame, are raised on comparatively small pieces of land. To obtain large-sized tubers, small ones, or portions of large, are planted in ridges, at from ten to twelve inches apart; and the plants being allowed to grow freely in autumn, the tubers thus attain an average weight of one pound and upwards. This is the plan which has been pursued at the Museum of France, the only place in Europe where the new plant has hitherto been cultivated. And in the report of M. Pepin on the subject, it is conceived that a few years must yet elapse ere we shall know to what extent the roots left in the ground will acquire weight and bulk, and how long they may remain in the sod without deterioration of their quality; for it is one of their peculiarities that, like the roots of the Jerusalem artichoke, they will remain in the ground several years, acquiring weight, size, and nutriment, instead of deteriorating, and requiring, in fact, little or no cultivation, whilst yielding at all seasons aliment within the reach of every one. A tuber taken up at the end of three years, in France, had its cellular tissue healthy to the centre, where it was neither hard nor woody. A root was also preserved in a cellar from Oct., 1852, to 30th May, 1853, without any development of shoots, unchanged, without loss of weight, and might have been kept so nearly throughout the year, which is not the case with either the common or sweet potato, since they always sprout in spring. Moreover, Decaisne believes this Dioscorea richer in nutrition than, and superior in quality to the potato; its roots are white as snow, having no visible fibre or woody matter within, and, cooked by steam or roasted, look and taste like the best potatoes. This is not their whole culinary advantage, either; for two pieces of tubers, the size of a hen's egg, of Dioscorea and Batate blanche, being put into boiling water simultaneously with a Dutch potato of similar size, were "done" in ten minutes, whilst the Dutchman took twenty.

The strongest point, perhaps, in favor of the new candidate for cultivation is the fact it will grow best on sandy downs usually considered barren, and may be regarded as a messenger sent by Providence to reclaim our most extensive wastes, in advance of the onward strides of population. It is, indeed, pointed out by its partisans as a probable means of converting waste land to a useful purpose, as well as profit. Neither does it require strong or liquid manure—items expressly forbidden in its culture; but pits filled with earth and a mixture of decayed manure, and treatment similar to that bestowed upon asparagus, are strongly recommended as the means of producing the most abundant crop, the question of the expense of manual labor being asserted to be of little consequence, compared with the remunerative results.

[The following description and details in regard to this most important vegetable acquisition, are copied from a publication recently issued at Paris.

The flesh is white, very mealy, and equal in quality to the potato. The stems of the plant are twining, and grow to the height of 4 to 6 feet, the leaves heart shaped, the flowers very small, dioecious, of a yellowish color, and produced from the axils of the leaves. If planted in April, the Dioscorea will by the ensuing October produce tubers 15 to 20 inches long, slightly swelling at the ends, being club form, and weighing from 10 to 14 ounces each. Of all the plants which have been proposed as substitutes for the potato, the Dioscorea is the only one which presents claims sufficiently strong to sustain the competition, for if the Dioscorea can enter into a successful competition with the Potato for the quality of its tubers, it can most assuredly do so by the quantity of its crops. The plants when placed at a distance of 12 inches by 8, will, according to the authority of Professor Decaisne and M. Paillet, yield about 290 cwt., (per acre, we suppose,) or 14½ tons when growing from April to October, or 48 tons if allowed to remain two seasons in the ground, that is, to occupy the ground from April of one year till October of the subsequent one. In the latter case, the roots attain a much larger size, and are often of two pounds weight.

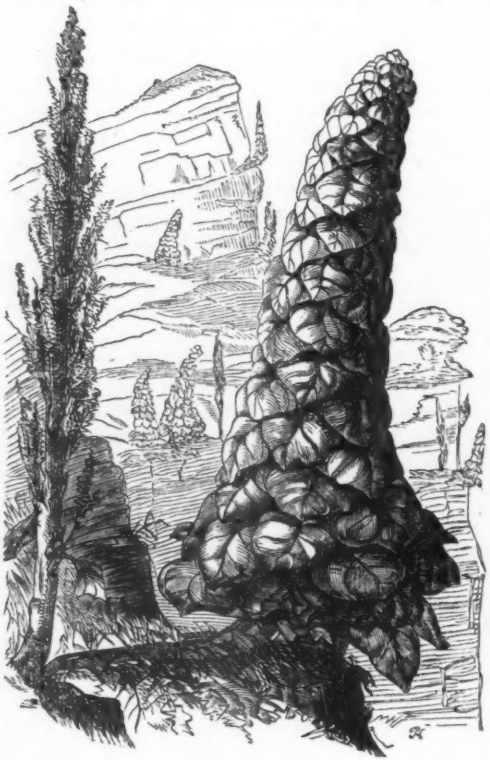
Although we can scarcely realize that so great a product may be obtained, we nevertheless think that this plant deserves in every respect to be fully tested, and the other circumstances that would recommend the Dioscorea Batatas to the serious attention of every cultivator, are the facility of its culture, and its extraordinary hardihood, which latter enables it, as the experience of the two past winters show, to sustain in open field culture 5° of Fahrenheit, and probably a still more intense degree of cold. Being of a perennial character, the most profitable course would seem to be, to grow crops of two years, as there is by this mode a much greater yield from the increase of size of the tubers.

This plant is growing in various places in the United States. We shall soon have reports respecting it here. Next month we shall give a portrait of the root, and communicate a full account of the mode of culture.—Ed.]

RHEUM NOBILE.

"THE present is certainly the most striking of the many fine Alpine plants of Sikkim; and though in every botanical character, as also in the acid juice of the stem, a genuine Rhubarb, it differs so remarkably in habit and general appearance from any of its congeners, that at first sight it could not be recognised as one of them. I first saw it from a distance of fully a mile, dotting the black cliffs of the Lachen Valley at 14,000 feet elevation, in inaccessible situations, and was quite at a loss to conceive what it could be; nor was it till I had turned back the curious bracteal leaves and examined the flowers, that I was persuaded of its being a true Rhubarb.

"The individual plants of Rheum nobile are upwards of a yard high, and form conical towers of the most delicate straw-coloured, shining, semi-transparent, concave, imbricating bracts, the upper of which have pink edges; the large, bright, glossy, shining, green, radical leaves, with red petioles and nerves, forming a broad base to the whole. On turning up the bracts the beautiful membranous, fragile, pink stipules are seen like red silver-paper, and within these again the short-branched panicles of insignificant green flowers. The root is very long, often many feet, and winds amongst the rocks; it is as thick as the arm, and bright yellow inside. After flowering, the stem legthens, the bracts separate one from another, become coarse red-brown, withered and torn; finally, as the fruit ripens they fall away, leaving a ragged looking stem covered with panicles of deep brown pendulous fruits. In the winter



these naked black stems, projecting from the beetling cliffs or towering above the snow, are in dismal keeping with the surrounding desolation of that season."

Such is Dr. Hooker's account of this curious Rhubarb, of which the accompanying sketch is taken from his recent work on Himalayan plants. The natives call its stems "chuka," and eat them, their acidity being pleasant. Some of the seeds which were sent to Kew grew, and the seedlings lived two years; but we regret to learn that they have now been lost. Let us hope that the plant will be re-introduced with more success.

THE SCALE INSECT OF THE APPLE.

Nearly every person who grows an apple tree, has observed that the branches of the older, and stems of the younger trees, are frequently covered with a minute scale, showing in general no appearance of life, and resembling nothing so much as a miniature oyster shell. This little scale is, however, an insect, and one of the many enemies of the apple, belonging to a family that contains more anomalous forms than any other. It is the *Homoptera* of Maclay. All this family are supplied with a suctorial mouth arising so far back on the under side of the head as apparently to come from the breast in some species. The present insect is included in the genus *Coccus*, and has for its near relations, some that have been useful to man from the time of the ancients, producing valuable dyes, the cochineal being one of them; and it is calculated that in one pound of this dye there are 70,000 of these little insects. It feeds upon the cactus.

Our Apple Scale has, however, no qualities to render it useful; and a short account of its life and habits will be all that is necessary. When first hatched from the egg it possesses considerable ambulatory powers, and can crawl all over a tree and select a situation. It then inserts its *rostrum* into the tender bark and draws the sap, and such a constant drain, by the countless numbers found upon a tree, must be very injurious. The insect remains in this position until death in the female, undergoing its transformations, which, instead of producing a higher state of development, as in most other forms, has a contrary effect, it becoming in fact, a mere inert, fleshy mass, in some allied species losing even the rudiments of limbs and all appearance of articulation. The male, on the contrary, however, who is much smaller, in casting off his pupa skin, obtains pretty large wings, and well developed limbs, armed with a single claw, and his mouth becomes obsolete; he then sallies forth in search of his partner, of which he sees nothing but the pupa envelope. The female afterwards becomes distended with eggs. She then gradually dries up leaving the shell of her body for a covering to the newly hatched young, of which there are two broods in a year.

Preventive.—Harris, in his "Tre tise on Insects injurious to Vegetation," recommends the following as a preventive: To two parts of soft soap, add eight of water, and mix as much lime with it as will make a stiff white wash, and apply with a brush to the trunk and branches of the infected trees in the month of June when the young insects are newly hatched. K.

Remarks.—This is a capital description of the Apple Scale, by one of the most promising Entomologists in Ohio.—*Ohio Farmer.*

ADDITIONAL REMARKS ON THE SEQUOIA (WELLINGTONIA) GIGANTEA.

TRANSLATED FROM THE REVUE HORTICOLE.

Our readers now know what to think of the giant trees of California, which so much interested the attention of the horticultural public, and persons in general, during the closing months of the past year. The various articles which have been published in the *Revue*, and especially the learned notice by M. Decaisne, have removed all doubt on the subject. We thought nevertheless that, on account of the peculiar interest attached to this tree, it would be agreeable to amateurs to publish some new details collected in August, 1854, by an American traveller, Dr. F. Winslow, who communicated them to a journal published in San Francisco, the *California Farmer*, from which we have borrowed them through the medium of the Botanical Journal of M. Hooker and the *Gardener's Chronicle*.

We have said that the author of these remarks was an American; this fact should be known, inasmuch as it explains the somewhat emphatic tone of his narrative and the exaggerations which have crept into it, probably from inadvertence or from excess of admiration, and which may be readily forgiven him. He is less excusable in the impertinent remarks which, in a transport of misplaced natural self-love, he has directed to Dr. Lindley, for venturing to give a name to a California tree without consulting the Americans. The reasons for these objections will be seen presently; *ad interim*, we shall proceed to give the most useful parts of his travelling reminiscences.

"The *Great Tree*, (thus he distinguishes the *Sequoia gigantea*,) is peculiar to the Sierra Nevada, and grows no where else on the globe. I may even add, as far as my information extends, that it is entirely confined to a narrow basin of 200 acres at most, of which the soil is silicious and strewn with blocks of Lignite. This basin is very damp, and retains here and there pools of water; some of the largest of the trees extend their roots directly into the stagnant water, or into the brooks. There are more than a hundred which may be be considered as having reached the extreme limits of growth which the species can attain. One of our countrymen, Mr. Blake, measured one, of which the trunk, immediately above the root, was 94 feet in circumference. Another, which had fallen from old age, or had been uprooted by a tempest, was lying near it, of which the length from the roots to the top of branches was 450 feet. A great portion of this *monster* still exists, and, according to Mr. Lapham, the proprietor of the locality, (and who has undoubtedly appropriated to himself all trees by right of occupation,) at 350 feet from the roots the trunk measured 10 feet in diameter. By its fall, this tree has overthrown another not less collossal, since at the origin of the roots it is 40 feet in diameter. This one, which

appeared to me one of the greatest wonders of the forest, and compared with which man is but an imperceptible pigmy, has been hollowed, by means of fire, throughout a considerable portion of its length, so as to form an immense wooden tube of a single piece. Its size may be imagined when it is known that one of my companions, two years ago, rode on horseback in the interior of this tree for a distance of 200 feet, without any inconvenience. My companions and myself have frequently entered this tunnel and progressed some sixty paces, but have been arrested before reaching the end by masses of wood which had fallen from the ceiling. Near these overthrown giants others still are standing, not inferior to them in size, and of which the height astonishes the beholder. I can mention three particularly, which, entirely isolated, grow near each other so systematically as to appear to have been planted purposely to produce the effect. A fourth is remarkable in having, between 50 and 100 feet from the ground, its trunk divided into three enormous branches of the same size and nearly parallel, extending to a distance of more than 300 feet. Others are distinguished by the straightness of their trunk, comparatively as delicate and erect as that of a Pine-tree, and which are not less than 350 feet in height. At some distance may be seen a species of knoll rising from the surface of the ground, and which is merely a half developed knot, the last remains of one of these monsters, which have fallen centuries ago and are now buried under the soil.

"I am informed by Mr. Lapham, that the wood of one of these trees is remarkable for its very slow decomposition. When freshly cut the fibre is white; but it soon becomes reddish, and by long exposure to the air acquires a color nearly as dark as Mahogany. Its consistence is rather feeble, nearly resembling the Pine or Cedar, but the bark covering it differs materially from the latter. It is excessively thick near the foot of the tree, sensibly elastic on pressure, and is readily divided into a mass of fibres closely resembling those constituting the husk of the cocoa-nut, but much finer. About this portion of the trunk it is split in every direction by deep cracks, but at the elevation of 100 or 180 feet, it is almost smooth and not more than two inches in thickness. At this point the bark is removed from the living tree for exportation. (How can such a sacralege be tolerated!) A hotel has been built along side of the "Great tree," the bark of which was exhibited last year at San Francisco, and, on its overturned trunk a sort of ladies' pavilion has been erected, which serves as an elegant promenade. In order to fell it the trunk was bored, by means of a very long and powerful auger, with many holes very near to each other and arranged circularly; but even when almost detached from its bases its immense mass resisted all efforts to overthrow it. Four days subsequently it was blown down by the wind. It shook the earth when it fell, and made for itself a deep furrow in the ground in which it lies, at this moment, half buried."

It is useless to extend our quotations; they would teach us nothing new; we shall merely observe that the remarks of the American Dr. contain useful observations on the nature of the soil in which the *Sequoia* grows. This soil is siliceous and swampy, and, as the tree apparently grows nowhere else, these two peculiarities become very characteristic, and should be remembered by persons who may under-

take its culture. He also informs us, which we omitted to state, that the atmosphere is damp, and very frequently foggy in the region in which it grows.

The narrator terminates his account by a violent diatribe against Mr. Lindley, whom he does not spare. By what right has the latter taken the liberty to rob the Americans of their *Great tree*, in order to dedicate it, under the name of Wellingtonia, to a hero with whom America holds no communion? The citizens of the United States should boldly assert their rights; like the English, they have a hero to immortalize by the name of a tree, that hero is Washington, who from ocean to ocean spread liberty over the New World. Without regard to the laws of botanical nomenclature, the *Great tree* should henceforth be called *Washingtonia Californica*, or at least, if it be merely a *Taxodium, T. Washingtonium*.

We regret that the wish of this patriotic doctor cannot be fulfilled; but the laws of botany are stern and merciless; the "Great tree" will be the namesake of neither the great citizen of America nor of the hero of England; despite its majestic proportions, it must be content with the barbarous and almost trifling name of *Sequoia*. It would certainly have been desirable to attach the name of Washington to this prince of American trees; this talisman might probably have preserved it from the brutal vandalism which will soon cause its species to disappear, if the Government, or at least the enlightened men of the place, do not soon take it under their protection. Moreover, whose fault is it, that the *Sequoia* be so named? Since it is a native of America, the Americans should have discovered and named it. Were they not so obstinately bound to the auriferous soil, and less solicitous for the sensualities of matter, and had they occasionally raised their eyes to Heaven, they would have discovered this wonder of creation, and not have been forestalled by Europeans. Instead, therefore, of indulging in useless recriminations, let them learn to preserve these noble monuments of nature from destruction; that will be glory enough, and a glory of which no one will think of depriving them. NAUDIN.

MYRTLES.—"Mr. Jeffrey," writes Sydney Smith to the Countess Grey, "wanted to persuade me that myrtles grew out-of-doors in Scotland, as here. Upon cross-examination, it turned out that they were prickly, and that many had been destroyed by the family donkey."

NOT UNCOMMON.—"My situation is as follows: I am engaged," says the witty clergyman, "in agriculture, without the slightest knowledge of the art; I am building a house without an architect; and educating a son without patience! Nothing short of my sincere affection for Jeffrey, and pity for his transatlantic loves, should have induced me to draw my goose-quill."

HAPPINESS.—To Jeffrey he writes: I am truly glad to hear of your pleasure in your little girl and your chateau. The haunts of happiness are varied, and rather unaccountable; but I have more often seen her among little children, and home firesides, and in country houses, than any where else—at least, I think so.

NEW PLANTS.

TORREYA MYRISTICA. — *California Nutmeg. Nat. order, Coniferæ. Diœcia Polyandria.*

A beautiful evergreen tree, thirty or forty feet high, native of elevated regions in the Sierra Nevada of California. The slightest glance at the internal structure of the fruit at once identifies this tree with the *Torreya* of the Southern United States, found only in the Ashalaga and Apalachicola country of middle Florida; there has been discovered the *Torreya Taxifolia* of Dr. Arnott. On first aspect there is as much difference between them as there is between the *Cephalotaxus* Fortuni and the common Yew. The *Cephalotaxus* represents our California Nutmeg with its large foliage, and the common Yew *Torreya taxifolia;* in fact, the foliage and fruit of *Torreya myristica* are more than twice the size of *T. taxifolia*, and thus the common observer will never be at a loss to distinguish them. *Bot. Mag., tab.* 4780.

TORREYA MYRISTICA.

CEREUS LEMAIRII (*Lemaire's Cereus.*)—This is a native, probably, of Antigua. It is night-blooming and fragrant. Flower very large, being one foot long and nine inches across. The petals are white, and calyx yellow. It requires a stove, and blooms in June. (*Botanical Magazine.* t. 4814.)

CEANOTHUS PAPILLOSUS (*Pimpled Ceanothus.*)—A hardy shrub from California, where it was discovered by that martyr of Science, Mr. Douglas, but introduced into our gardens by Messrs. Veitch, of Exeter and Chelsea Nurseries, who received it from Mr. W. Lobb. It produces, in July, very numerous blue-petaled heads of flowers. It is a very desirable garden plant. (*Ibid.* 4815.)

KNIPHOFIA UVARIA (*Saw-edged-leaved Kniphofia.*)—Long but erroneously known as *Tritoma uvaria;* but it has had many other names, such as *Tritomanthe, Aloe, Atetris,* and *Veltheima.* It is of the natural order of *Asphodels.* The leaves thin and three feet long, grow in thick tufts; the flower-stems are about the same length, each crowned with a dense, branched drooping spike of bright red flowers gradually becoming yellow. "Although a native of the Cape of Good Hope, no plant can be more hardy, nor more easily cultivated, and, assuredly, none more worthy of a place in every garden." It blooms in August. (*Ibid.* 4816.)

HYPOXIS LATIFOLIA (*Broad-leaved Hypoxis.*)—Introduced, in 1854, by Captain Garden of the 46th Regiment, from Natal. It has a bulb-shaped tuber, about the size and colour of a small greened Turnip. The leaves, about six inches long, rise from it like those of a Leek, and from their axils come the flower-stalks terminating in bunches of yellow flowers. It will probably prove hardy. (*Ibid.* 4817.)

BEFARIA ÆSTUANS (*Glowing Befaria.*)—This has been also called *Acuna oblonga.* It is a native of the Andes Mountains in South America, where it was found by Mr. W. Lobb at about 8000 feet above the sea. It is a hardy greenhouse shrub. The name of the genus is also spelt *Bejaria,* under which it will be found in THE COTTAGE GARDINERS' DICTIONARY. (*Ibid.* 4818.)

LEPTODACTYLON CALIFORNICUM. *Hooker and Arnott in Beechey's Voyage, p.* 369 *t.* 89; *alias* Gilia californica, *Bentham in De Cand. Prodr.* ix. 316.

When this beautiful plant was shown by Messrs. Veitch, under the name of Leptodactylon californicum, we supposed that some change of tickets had occurred, so entirely did it wear the appearance of the prickly Phloxes of Siberia and North America. Since that time we have been enabled to examine its structure, and it really is what it has been called. The genus Leptodactylon was founded upon two North American plants, one of which Sir Wm. Hooker had previously called Phlox Hoodii, but which have been found to differ from Phlox in the ovary containing a great many ovules instead of only one or two; to which must be be added the division of the leaves into linear digitate segments, instead of being entire; a circumstance easily overlooked in consequence of the division being carried to the very base of the leaves.

Since Leptodactylon was founded by Messrs. Hooker and Arnott, the whole order to which it belongs has been re-examined by Mr. Bentham, who reduces the genus to Gilia, calling the plant before us Gilia californica. We own to a great difficulty in believing that the alteration will be permanent, and therefore retain the name first given, which is now beginning to be known in gardens. Into the botanical question of what is to be done with Leptodactylon we cannot enter.

The plant before us is one of the most charming acquisitions of Mr. Lobb, who found it on the mountains of St. Barnardino, in California, and who describes it as an evergreen shrub from 2 to 4 feet high. We have before us some of his wild specimens, which entirely bear out the statement. The wood is hard, the branches closely covered with bright, green, stiff, finely cut leaves, and loaded with rose colored flowers as large as those of our common Phlox. It may be compared not inaptly to a bush of Irish Furze loaded with the blossoms of Plox maculata, only pale and delicate rose colour instead of deep purple. We presume the species will be a hardy greenhouse or frame plant, requiring more air and dryness than heat in winter. It has all the appearance of being well suited for summer bedding out.—*Gardeners' Chronicle.*

"The foundation of good breeding is the absence of selfishness. By acting always on this principle — by using forbearance and moderation in argument, even when you feel sure that you are right, and by showing a becoming diffidence when you are in doubt, you will avoid many of the errors which men are apt to fall into. Reader, bear in mind that this holds good in all things, and not only in Fishing, Shooting, and Chess."—*Penn's Hints on Angling.*

TREATMENT OF THE HEMLOCK.

In a former number we promised to give the results of some experience in treating that most beautiful of our native evergreens, the hemlock. Its value and importance is attracting much attention, both as a single tree, a screen, a hedge, or a shrub, and we know nothing more deserving attention from American planters.

It is a difficult tree to procure in many neighborhoods, (though it will be seen several extensive nurserymen advertise it) and where that is the case it may be grown from the seed, which is procurable from dealers in this vicinity. These are to be mixed with sand, if you cannot plant them immediately. As soon as the Spring opens, make a bed on the north side of a fence, where it will be shaded the greater part of the day; the bed should be composed of one-third sand, one-third good loam, and one-third light leaf-mould, well incorporated and sifted. Plant the seeds in drills, and cover the bed with a little old spent tan, or more leaf mould, to keep it light and moist; water it regularly every evening in dry summer weather to prevent the young seedlings from dying off. The young plants may be moved as soon as they have vigor enough to take the positions they are designed for.

If they can be obtained from the woods, about eighteen inches in height, time will be saved, but in this case it will be useless to remove them without a covering of earth for the roots brought with them; with a little care there is no difficulty in this; to make the removal certain, sprinkle water from the rose of a watering pot upon the roots after you have got them into your vehicle. The operation should be accomplished about the time they are first putting forth their beautiful young growth, and on a cloudy day. In planting them use the same soil as recommended above for the seeds, and mulch the roots for a foot or two around with stones; these are to be raised every year and a little additional leaf mould put on and the stones replaced, till the plant has made a growth of several years.

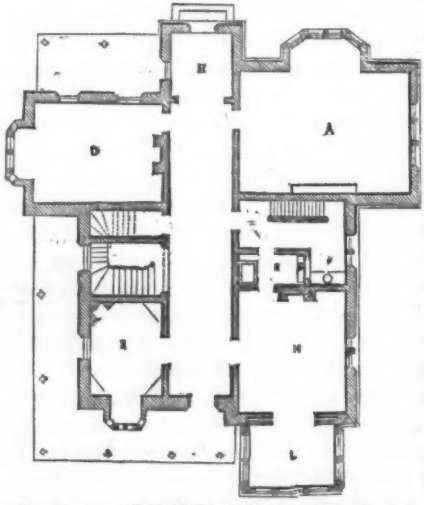
The best examples of hedges of hemlock that have anywhere come under our notice, are those of Moses Brown, Esq., on Schoolhouse lane, Germantown, Philadelphia. They have been a labor of love, and the result of careful culture for many successive years; here may be seen hedges of various ages and modes of planting. At first the double row, and plants one foot apart, was adopted; this plan has produced handsome thickset hedges, but it consumes a great number of plants, and *a single row two feet and a half apart* has been found by actual repeated experiment, to serve the purpose equally well, and to possess the advantage of exhausting the soil much less. Mr. Brown brings his trees from their native habitat near by, and subjects them to the shears at once to give them a trim look and to induce a close habit. They make little progress for the two first years, but after that their beauty becomes apparent, and they rapidly assume character and importance. Mr. Brown mulches all his hemlock hedges with stone, and feeds them annually with leaf mould. He does not trim them more than once a year, and that in the Spring,

preferring the luxuriant full appearance which nature produces; but where a set hedge or solid looking wall is desired, we should recommend, as heretofore, a close cutting in September.

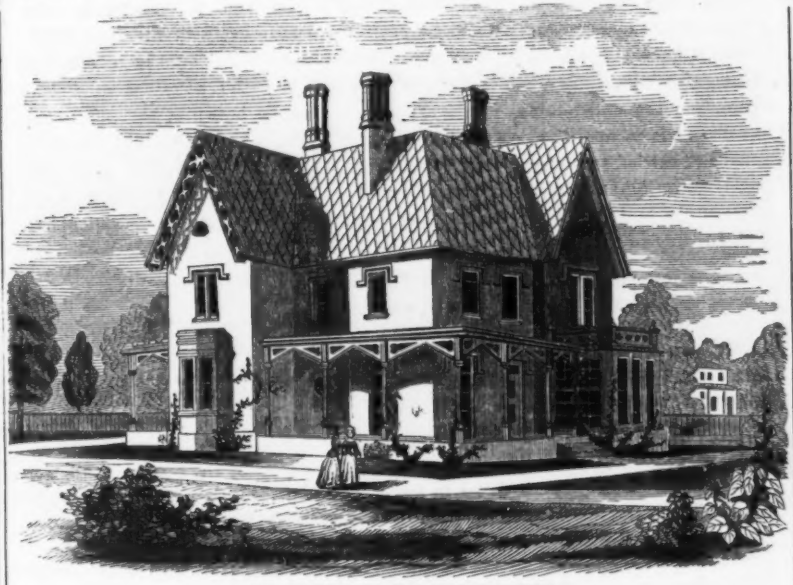
As a single shrub, regularly kept down by the shears, the hemlock is extremely beautiful, as it also is as a screen without much use of the shears; as a single tree nothing need be more ornamental, and standing alone their habit of growth is highly picturesque. A visit to Mr. Brown's premises in the morning when the dew is on the trees, or rather a shower of rain when the sun shines through the branches of these beauties of nature, is highly gratifying; so fond is he of the hemlock, that his place is a fair show, embracing the perfect large tree and all the various forms it is capable of assuming. When once established the Hemlock, though not quite so rapid in growth as the Norway Fir, is by no means to be classed with the slow-growing evergreens, and remember it *is* green and perfectly hardy.

VILLA AT NEW HAVEN.

THE accompanying design, in the old English style, is for a villa to be erected at New Haven. The outside walls are of brick, 16 inches thick and laid hollow; the inside walls are 8 inches and laid solid; the bay windows and verandas are of wood, with stone underpinning. In the basement floor, under the dining-room and close by the private stairs, is the kitchen; also scullery, pantry, laundry, servants' room and cellars. The other arrangements will be understood by a reference to the drawings. The window blinds are made to slide in the thickness of the walls, while those for the bay windows fold into each side of the opening. The dining-room communicates through the butler's pantry with the private staircase, in a recess of which is a wash basin, while the green-house is separated from the dining-room by sliding sash doors. The butler's pantry, containing dumb-waiter and sink, is lighted by a window opening into the private staircase. In three of the angles

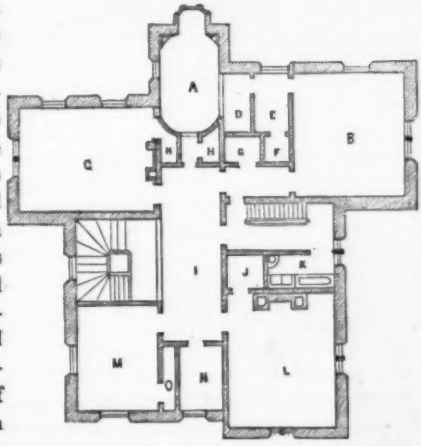


A. Drawing-room. B. Vestibule. D. Library. H. Dining-room. I. Study. J. Green-house. K. Butler's Pantry. F. Wash-basin. G. Sink.



BY WATTS & HOLLY, NEW YORK.

of study are bookcases, the other contains the fire-place, which is similar in treatment to them; this ensures uniformity, and carries out the octagonal character of the room, while the ceiling remains square. In the chamber floor the family bedroom has a communication with both main and private halls, also, by passing through the dressing room, with the children's bed-room, while the linen closet and bath-room are of easy access, and conveniently situated for the use of all the other parts of the house. The arrangements are such as will allow of the family rooms being separated from the rest of the house in case of any member of the family being sick, and yet to have free communication with the other floors. This secures a quiet place for the sick, with sufficient space and



A. Children's Bedroom. B. Family Bedroom. C. Spare Bedroom. D. Niche for Bed. E. Dressing-room. F. Closet. G. Linen Closet. H H. Closets. I. Hall. J. Closet. K. Bath-room. L. Bedroom. M. Bedroom. N. Play-room. O. Closet.

variety while convalescent, great convenience for bathing, and speedy communication with the servants, without at any time interfering with the more public rooms or halls. The building is to be coated externally with stucco in imitation of stone, with sills, lintles, and arches of brown stone; the basement is of blue stone, and the underpining, where exposed to view, is brown stone. Thorough ventilation is ensured to every room by means of shafts in the hollow wall, which are afterward carried to a large ejector on the roof, and that is encased in appropriate wood work. The rooms which have no fire places are warmed, along with the other parts of the building, with hot air. The vestibule is to be laid with encaustic tile. The house is to cost $10,000.

NEW AND VALUABLE BOTANICAL WORK.

NOTHING has hitherto been made public so well calculated to impress the mind with admiration of the Himalayan vegetation as a thin folio volume* by Dr. HOOKER which has just appeared. During his residence in India the author became acquainted with the late Mr. CATHCART, a most zealous amateur, who had formed at a great cost by means of native artists, and a corps of Lepcha collectors in his pay, a very extensive series of drawings of the vegetation that surrounded him. His residence is described as a singularly beautiful spot about 1000 feet below Darjeeling and 6000 feet above the sea, occupying a mountain spur overhanging the steep forest-clad gorge of the great Runjeet river, 5000 feet below, and descending in steep jungly slopes on either hand. "Through these forests he had caused the natives to cut paths, directing all their operations with all the taste and judgment of an experienced and skilful landscape gardener. These openings led through the tangled jungle and wound amongst tall trunks of giant timber trees, which were clothed with climbing Palms, wild Vines, *Pothos*, *Hodgsonia*, and *Ipomœa*, and laden with masses of Orchids and Ferns, suddenly emerging on eminences commanding views of 200 miles of snowy mountains, rising range behind range in dazzling beauty, and again descending by zigzags to cascades fringed with Ferns and Mosses, and leading thence along the margins of rippling streams, overshadowed by Tree Ferns, Bamboos, and wild Plantains." Surely this must be a scene in Fairy land! In such retreats were collected the materials out of which has been made the selection of drawings now laid before the public; aided, however, by Dr. HOOKER'S own sketches and reduced to an artistic form by the inimitable pencil of Mr. FITCH. Of the merit of the plates it is difficult indeed to speak too highly. Undoubtedly they are the finest that have ever yet been prepared by any English artist; nor are they in any degree inferior to the drawings of the celebrated Austrian BAUER.

The high price of the work unfortunately places it far beyond the reach of many purchasers. We shall therefore be doing our readers a real service by bringing before them a short account of such of the plants as appear to possess the greatest horticultural in-

* "Illustrations of Himalayan Plants," chiefly selected from drawings made for the late J. F. CATHCART, Esq., of the Bengal Civil Service. The descriptions and analysis by J. D. HOOKER, M. D., F.R.S. The plates executed by W. H. FITCH. Folio. Reeve. 5*l.* 5*s.*

terest. Passing by the tropical *Hodgsonia heteroclita*, a prodigious Cucurbit, with slender climbing stems 100 feet long, and gigantic flowers, every petal of which terminates in half a dozen corkscrews exceeding the span of any man's fingers, we arrive at the following account of a hardy tree of such magnificent beauty that even the Victoria Lily is eclipsed in its presence.

Magnolia Campbellii.—This is a large forest tree abounding on the outer ranges of Sikkim, at elevations of 8—10,000 feet, appearing on the road above Pacheem, and thence ascending to the top of Sinchul 8000 feet, and Tonglo 10,000 feet; though occasionally seen on the central ranges at the same elevations, it is much less frequent. The trunk is straight, often 80 feet high, and 12 to 20 in girth, covered with black bark. The flowers are produced abundantly in April, at the end of all the branches, when the tree is yet perfectly leafless; they vary from white to deep rose colour or utmost crimson, and *in size from* 6 *to* 10 *inches* (*in diameter.*) In May the tree is in full leaf, and the fruit ripens in October, when a few small and often deformed flowers are sometimes produced. The branch represented by Mr. Fitch only bears three flowers and a bud, and yet it is with difficulty included within the space of 224 square inches.

Meconopsis Simplicifolia.—The most beautiful and conspicuous of all the Alpine flowers of Sikkim, if not of the whole Himalaya; common in rocky and gravelly places at 12,000 feet elevation and upwards, where it expands its large delicate deep violet colored blossoms in May, exposed to the violent winds and snow-storms of those inhospitable regions. It would be a most brilliant addition to out-of-door gardens, where it "would no doubt succeed perfectly, provided it be kept damp and cool, and not exposed to too long sunshine."

Meconopsis Nipalensis.—Of this grand species we have the following account:—"This superb plant, when seen from a distance, resembles a small yellow Hollyhock. It was discovered by Dr. Wallich's collectors in Nipal, and I found it in the damp interior valleys of Sikkim, growing amidst a rank and luxuriant herbage, on the skirts of Silver Fir forests (Abies Webbiana,) at 10—11,000 feet above the level of the sea. We need not say that the two last plants are Poppies, and no doubt cultivable without difficulty. Let the reader imagine a mass composed of the scarlet *Papaver bracteatum* or *orientale*, surrounded by the golden bells of this *Meconopsis nipalensis*, and bordered with an edging of the intensely violet *Meconopsis simplicifolia*, and he will form a picture which, for brilliancy of coloring and magnificent breadth of effect, has never yet been realized.

Decaisnea Insignis inhabits wooded valleys in the central regions of the Himalaya. Dr. Hooker first gathered it in the Lachen and Lachong valleys, at elevations of 7000 to 8000 feet, and afterwards at Chola, where it ascends to nearly 10,000 feet. Its green flowers appear in May, and are scarcely visible amongst the leaves; the fruit on the other hand, which ripens in October, is very conspicuous and handsome, of a pale yellow colour, and full of a white juicy pulp, that is very sweet and pleasant; its fruit is eagerly sought after by the Lepchas, who call the plant "Nomorchi," and it is the "Loodooma" of the natives of Bhotan. It would appear to be a plant of very uncommon aspect, resembling a young and very slender fast grown ash tree, among the feathery leaves of which hang clusters of great yellow fruit, somewhat resembling ram's horns. Its learned discoverer regards it as well worthy of cultivation in England for its fruit alone. "It would require protection from spring frosts, but will, no doubt, prove otherwise hardy."

Vaccinium Salignum and Serpens.—"The genus Vaccinium, which is mostly represented in northern climates by deciduous-leaved shrubs with small flowers, assumes a

very different habit and appearance in the tropical mountains of both the old and new world. In the lower Eastern Himalaya, Malay Peninsula, Java, and other of the Malayan islands, especially, there is an extensive section—to which the two species here figured belong—which could hardly be recognized as having much affinity with the Whortleberry of our moors. They are all epiphytical shrubs, *having the lower part of the stem often swelling out into a prostrate trunk, as thick as the human body or leg*, and sending out branching fibrous roots that attach it to the limb of the tree upon which it grows. These trunks are *soft and spongy internally, and are reservoirs of moisture and nutriment;* they send out a few slender, generally pendulous branches, which bear often gorgeous flowers." The two plants which give rise to the above remark are most beautiful shrubs with large crimson flowers, and would be brilliant ornaments of a greenhouse should they prove to be cultivable.

Buddleia Colvilei.—" This is very unlike any other Asiatic species of Buddleia in its size and form of flower, color, and the locality it inhabits, its congeners being almost without exception tropical or subtropical plants; in several respects it more closely resembles some of the species of the Andes, but it *has no rival anywhere for beauty and graceful habit.* It is abundant towards the summit of Tonglo, from 9000 feet to the top 12,000 feet. This will probably prove perfectly hardy, as I have found it in very exposed places as well as in woods; and from the abundance of its flowers, and its lasting some weeks in bloom, it would be a most desirable addition to our gardens." Let us add that the flowers are as fine as those of Escallonia macrantha, and as deep a red, while they grow in panicles as large as that of a common Lilac.

Æschynanthus Peeli, found in the thick forests where there has been no clearance, is perhaps a more brilliant red plant than any of the gorgeous species previously met with.

To these have to be added a Rhubarb (*Rheum nobile*)* of most prodigious form, resembling a giantess flounced from head to foot; an Oak (*Quercus lamellosa*) with magnificent leaves, comparable to those of the Spanish Chestnut, rendered hard and evergreen, and acorns so woody as to render riding unsafe where they have fallen in large quantities; the Sikkim Larch now in our gardens, which appears to be tender only when raised from seeds gathered at 8000 feet of elevation, but to be hardy if produced by seeds from 13,000 feet; and *Vanda Cathcarti*, a fine epiphyte, with great fleshy flowers, streaked with cinnamon-colored bars. Such things as these point unmistakeably to the scene of a new collector's labors; and it is to be hoped that the East India Company will forthwith despatch a skilful person in search of them.—*Gardeners' Chronicle.*

Natural Barometers.—Chickweed is an excellent barometer. When the flower expands fully, we are not to expect rain for several hours; should it continue in that state, no rain will disturb the summer's day. When it half conceals its miniature flower, the day is generally showery; but if it entirely shuts up, or veils the white flower with its green mantle, let the traveller put on his great coat. The different species of Trefois always contract their leaves at the approach of a storm; so certainly does this take place, that these plants acquired the name of the husbandman's barometer. The tulip, and several of the compound yellow flowers, all close before rain. There is a species of wood sorrel, which doubles its leaves before storms. The Bauhinia, or mountain ebony, capial and sensitive plants, observe the same habits.

* Of this we give an account in another page of the *Horticulturist.*—Ed.

EDITOR'S TABLE.

ANSWERS TO CORRESPONDENTS.—(W.) If you must have a rapid growing tree in the place indicated, plant a *Populus angulata*. We prefer it to all the poplars and it is as rapid as any.

(THE PROVOKING THING.)—*Sir*—I have a neighbor who is very fond of gardening; he comes to see me every fine day when I am most busy, and with a bland smile asks to walk with me in the garden. Now comes my trouble; as I try to exhibit what is done and doing, everything reminds him of his own garden and his own labors! We stand before my greatest beauty, which he scarcely sees, but the name suggests what *he* is doing and *he has all the talk to himself!* What shall I do?

ANS.—Listen to him, but next time endeavor to be out of sight about the time you expect him; *or* go to see him, do as he does, and *see how he likes it*. If he does not wince, be always as patient as you can be.

(A. D. G.) In our next.

(P. S. J.) Your American arbor vitæs are too near together by one half at least.

(A SUBCRIBER, MOORFIELD, KY.)—Brick is the *best* material for cisterns; 9-inch wall with common mortar coated on the inside with hydraulic cement. The *earth* on the outside should be well rammed as the work proceeds, as the weight of water would otherwise burst the cistern. Stone is the next best; but cisterns are sometimes made by digging a circular hole and then plastering hydraulic cement immediately upon the earthen sides.

A simple action ram with drawing pipe, will cost 40 to 50 dollars.

You can use 75 per cent. of the power, 25 per cent. being lost in friction.

The amount of water thrown up is about one seventh of the supply to a height of five times the fall.

Thus, if supply is 7 gallons per minute and fall 8 feet, you can throw 1 gallon 8 ⋈ 5 = 40 feet.

A waterwheel and force pump is preferable, if you can obtain water and fall enough, with a 9-feet wheel and a stream of 5 gallons per minute, 1000 gallons can be thrown to an elevation of 60 feet or more.

LAWNS.—When a lawn, from age, becomes filled with moss, its surface should be loosened several times in Autumn with an iron rake, in order to tear it up. Notwithstanding the grass will appear to be much disturbed, it will not suffer from the operation. Should there be any vacant or exposed places, let them be sown with grass seed, covering them with a thin sprinkling of vegetable earth. Small lawns should be improved with a slight resowing every year, in order to keep them thick and fresh.

SEVERAL communications were received too late for the present number.

J. H. A. (*Almont, Mich.*) The outline of your Pear represents the Seckle, for which you received it. Your description, however, seems rather to belong to the Citron des Carmes which we take it to be.

The Evergeen is Juniperus Virginiana, or Red Cedar.

H. Davis, (*Waterville.*) Your leather shavings might be very serviceable, by being first rendered with Charcoal either as a dressing for fruit trees, or as a fertilizer to land generally. As a mulching for raspberries, etc., they are valuable; buried in the ground they decay slowly, but surely add to the productiveness of soils.

W. S.—Your specimen leaf is Quercus Macrocarpa, the Over-Cup Oak.

Brownsville, Pa.

Mr. Editor:—The Fuchsia can be cultivated like an ordinary herbaceous plant with very little trouble. I have mentioned this to several amateurs and commercial florists, and as they had never before heard of the fact I presume it is not generally known. Having myself derived much useful information from the Horticulturist, I am induced to offer my *mite* for the benefit of others.

In the spring, after all danger of frost is past, I take the plants (when in bloom) from the green house, and after removing the pots plant them in a suitable border (one rather shaded is preferable) in the flower garden, where I leave them permanently. After frost commences in Autumn I cover them about their roots with spent tan to the depth of eight or ten inches, which I remove upon the return of nice weather in the Spring. The tops will then be dead, but they will throw up numerous sprouts from their roots which will bloom in great beauty and profusion all summer, viz: from the first week in July until checked by the frost in October or November. I have now several varieties in full bloom, which have been bedded out since April, 1852. The soil in which I grow them is but a good common garden soil. They should of course be watered in dry weather, but require during the summer no greater care than any common border flower.

It may be as well to add, that I tried the experiment of covering with stable litter, but without success, my plants all perished. Yours, &c.,

Nelson B. Bowman.

A New Esculent in this Country.—In May last I received from the Agricultural Division of the Patent Office, the "Chufas or Earth Almonds," known to botanists under the name of "Cyperus Esculentus," with the following notice of the same:

"It grows spontaneously in the light humid soils of Spain, and is cultivated in Germany and the south of France. If planted in May or June they are ready to be harvested in October. They resemble in taste a delicious chestnut or cocoanut, and like them may be eaten raw or cooked. They are chiefly employed for making an orgeat, (orchata de chufas) a delightful, refreshing drink, much used in Spain, Cuba, and other hot climates where it is known. When mashed to a flour, which is white, sweet and very agreeable to the taste, it imparts to water the color and richness of milk. At Almacero and Albarago considerable attention is devoted to the cultivation of this plant, eight acres of land yielding a profit of $3,500 in five months."

I planted the tubers or bulbs according to the directions accompanying them. They are now growing vigorously, and very easily cultivated, requiring no special care and I have no doubt will be as productive as any vegetable grown in this climate. I hope to have seed enough to plant some two acres of ground next season. It is worthy of cultivation as an ornamental plant. J. V. McCullough.

Cincinnati, Oct. 1. 1855.

FREE AND EASY.—A Western editor announces that his wife has gone among her relatives "to recruit her jaded energies," and he himself is going to travel along the line of certain counties. He adds quaintly and familiarly, "Give us a nod and a shake of the hand as we go along!"

A NEW RHODODENDRON is noticed in the last Southern Cultivator, as having been discovered by S. McDowell, of Franklin, Macon county, N. C. It grows to the height of five feet; the foliage larger and more rich than the Pontic, with larger panicles of flowers and a more brilliant color, which is a bright crimson approaching scarlet. We have received a draw ng, and shall publish it.

"MUCH LABOR ON LITTLE LAND," says the Rural New Yorker, "it has been observed is the secret of successful farming, and the more we learn practically and theoretically of agriculture, the firmer becomes our conviction that *it is so.*"

PRODUCTIVE CROP.—The Salem (Mass.) Gazette says:—"We were informed by Mr. Asa Bushby, jr., of South Danvers, that he lately gathered 6000 bunches of onions from half an acre of land, which sold, delivered at our whaves, for more than $200."

BAYARD TAYLOR'S INDIA, CHINA, AND JAPAN contains less information of a positive or scientific kind than could have been expected. The only gleanings from it we have been able to make are the following:—

"The husk (of the tamarind tree,) incloses a thick paste, wrapped around the seeds, with an intensely acid, but agreeable taste." p. 52.

"The acacia and tamarind are occasionally met with, and the date and brab palms thrive in the valleys. The tamarind frequently rivals the banyan in size, while its foliage is wonderfully graceful and delicate. The leaflets of its slender pinnate leaves are so small, that the Koran could not more forcibly describe the torments of Mahomedan hell, than when it says that the sinners in the nether fire shall receive, to cool their thirst, just so much water as will lie on one of these leaflets, once in a thousand years." p. 82.

"In the valleys is found the *deodar*, or Himalayan Cypress, which grows to a height of more than 200 feet." p. 190. This is a brief notice for the Deodar!

The description of Agra and its architectural reamins, is the redeeming feature of the work.

POP CORN.—The horny or flinty portions of corn, when viewed in their sections under a good microscope, will be found to consist of a great number of six-sided cells, filled with a fixed oil, which has been successfully used for the purposes of illumination. On this oil depends the popping qualities of corn; for when the kernels are heated to a temperature sufficiently high to decompose the oil, a sudden explosion takes place, and every cell is ruptured by the expansion of gaseous matter, arising from the decomposition of the oil and the formation of carburetted hydrogen gas, such as is sometimes used in lighting large cities, the grain being completely evolved and folded back, or turned inside out. This property is remarkably strong in the pop corn, and is common in a greater or less degree in all corn abounding in oil; but those kinds destitute of a horny cover will not pop under any circumstances. After the decomposition or extraction of this oil, corn is more readily digested by man, though it is less fattening to animals.

Longevity.—Our forefathers entertained the erroneous belief that the loss by perspiration abbreviated life. Manpertius recommended that the body, therefore, should be covered with pitch, and Carden actually argued that trees lived longer than animals because they took no exercise!

Hedges of Old.—Homer says in his Odyssey, that when Ulyssus returned from Troy to his father Laertes, after many years absence, the good old man had sent his servants into the woods to gather young thorns for forming hedges, and while occupying himself in preparing the ground to receive them, his son asked him, "Why, being now so far advanced in years, he would put himself to the fatigue and labor of planting that which he was never likely to enjoy?" Laertes taking him for a stranger, gently replied, "I plant against my son Ulysses comes home!"

Poultry and Eggs.—Have our readers any idea of the annual value of poultry and eggs in the United States? The value of poultry in 1840 was estimated at more than twelve millions of dollars, and three years later at twenty millions. It is estimated that the city of New York expends yearly a million and a half in the purchase of eggs alone.

Horticultural and Agricultural Exhibitions.

The Ohio State Fair was most flattering to its promoters. The general appearance of the people, says a gentleman who was present, indicated a high state of mental and moral cultivation. The same individual remarks on the subject of young ladies competing for premiums on horseback—"If they get in the habit of managing so noble an animal as the horse, and find it so easily done, won't they try their hand at man?" We can assure him there is not the slightest danger.

Massachusetts Horticultural Society.—The twenty-seventh Annual Exhibition of the Massachusetts Horticultural Society was held at the Music Hall. The display, if not quite equal in extent to some of those of former years, was decidedly the most neat, tasteful and complete we have ever seen. A minute description of it cannot be here attempted. "It was an affair which did equal credit to the exhibitors, managers, and the citizens of Boston and vicinity. It is a subject of pride to a Bostonian that such an exhibition should be thronged with visitors for four successive days—the number averaging five thousand a day. It indicates the prevalence of a healthful sentiment among our people—a taste for the promotion of an art which refines and ameliorates mankind. If some one should be disposed to retort, that a different kind of an exhibition was largely patronized here a few days ago, we would reply that the people who visited the Music Hall for the two objects, were generally of quite different classes; and while we have reason to regret that so many were found to justify the adage that "the fools are not all dead," we rejoice that the class was far outnumbered by the intelligent votaries of Flora and Pomona."

Pittsburg Horticultural Society.—At an adjourned meeting of the Society, President McKnight said that the meeting was appointed to be held for the purpose of receiving the report of the Strawberry Committee. The President being the chairman of the committee then read a valuable paper which we give entire below, as it must be of great interest to Allegheny readers.

The committee appointed to report which varieties of the Strawberry were the best for cultivation in this vicinity, beg leave to report as follows:

That they do not consider it advisable to recommend many varieties for general cultivation, but rather to select a chosen few, which may combine most of the qualities which in their opinion should be deemed essential to constitute a good sort. These qualities they think are flavor, size, beauty and productiveness; to which may be added early maturity, very late maturity and carrying well to market. The varieties agreed upon by your committee have been selected from more than thirty which have been tested in this vicinity or a locality similar as to soil and climate. And without any desire to glorify our own growers, we would say that we have never seen the Strawberries of Allegheny county surpassed. We would further state our belief that some of those named on our list have been condemned in some other localities, because growers had not the genuine plants. For two of the varieties chosen we are not quite sure of the correct name, but give those by which they pass here, and those with which they are considered identical.

No. 1. First on the list they unite in placing "McAvoy's Superior" Pistillate, for flavor, size, beauty and productiveness.

No. 2. "Buist's Prize," Hermaphrodite, size, beauty, productiveness, good for market.

No. 3. "Hovey's Seedling," P., size, beauty, and productiveness, good for market.

No. 4. "Victoria," thought to be the Princess Alice Maude," Herm., flavor, size and beauty.

No. 5. "Myatt's British Queen," H, flavor, size, beauty and late maturity.

Your committee would also recommend for early trial, an early scarlet berry, not that known as the "Large Early Scarlet," nor "Virginia Scarlet," but a Pistillate variety, called here the Baltimore Scarlet, which promises well, ripening eight or ten days before the other varieties, and being handsome and well flavored. They would further recommend for fancy cultivation, and as a Dessert garnish, the Bicton Pine, white, beauty, size and high flavor, though the plant is slender and unproductive. The above list contains a succession, ripening through the season; and from it, the private cultivator, or market gardener can readily select in quality, and proportion, to suit his individual case.

Robert McKnight, Wm. H. Williams, J. Knox, Jas. S. Negley.

Some discussion ensued upon the question of precedence of different varieties, when, upon motion of Mr. McKain, the report was unanimously adopted.

Annual Exhibition of the Cincinnati Horticultural Society.—The late annual display of the Cincinnati Horticultural Society, was a complete triumph, so far as the articles on exhibition and the liberal manner in which the Exhibtion itself was supported by visitors was concerned. Such is the universal testimony of visitors, and if we might judge by the fine fruits seen in the place after the exhibition was over, such as apples, peaches, pears, etc., we should say, Cincinnati is on the topmost ladder of Horticultural fame. Mr. Ernst, showed us his fine fruit room filled with Lawrence and other good pears, and apples in abundance. Mr. Longworth displayed his magnificent wine vaults, one tun in which contained 4,580 gallons of wine! Success seems to attend whatever Cincinnati undertakes.

The Boston National Agricultural Show. — No report of this great event could reach us in time for this number. We shall notice it in our next.

Wisconsin Fruit Growers Association.—The second annual exhibition of the Wisconsin Fruit Growers' Association took place at Milwaukee, on the 18th, 19th, 20th September. The Milwaukee Horticultural Society united with the Association on this occasion.

The display of fruits and flowers might have graced an older Society in an older State.

A broad table ran all around the hall and was completely filled with fruit and boquets.

Above this extended a shelf for greenhouse plants, making a goodly show. Our florists are not much behind their Eastern and longer established brethren in the obtaining new and curious things from all parts of the world.

Of cut flowers there were several lots of "Remontant Roses," many varieties in each. Also several collections of tender roses; one of sixteen sorts. One lot twelve sorts "verbenas." The exhibition of "dahlias" was fine.

Of grapes, there were but a few Isabellas and Catawbas. The June frosts extinguished our last hopes in the way of a grape crop.

We boast not much of our peaches this year, though there were some fine specimens, especially of "Noblesse" and "Morris Red."

Plums were fine, though not so abundant as in more favorable years. I noted among the best "Smith's Orleans," "Yellow Egg," "Golden Drop," "Columbia," "Frost Gage," and "Onondaga."

Pears were abundant, and looked deliciously tempting. There were 70 varieties in all, varying from the little beauty "Forme de delices," to a very large specimen of "Bartlett" and "Steven's Genessee," very fine; "Flemish beauty," "Doyenne d'ete," "Beurre Goubalt" "Oswego Beurre," "Annanas d'ete," "Julienne," "Leon Le Clere," "Dutchess d'Angouleme," "Beurre d'Amalis," "Swan's Orange." One twig of "Begi de la motte," twelve inches long, contained as many pears. "Seckles" were fine and often unusually large.

Apples I considered as particularly noticeable; the "Rambo," "R. I. Greening," "Seek-no-further," "Baldwin," "Belle-flower," "Summer Queen," "Esopus Spitzenberg," "Fameuse," "Northern Spy," "Fall Pippin," "Fall Wine," "Spice Sweet," "Beauty of Kent," "Belmont," "Dominie," "Minister," "Vandevere," "Bevan's favorite," large specimens of the excellent "Hawley," and that beautiful, delicious favorite, the "Autumn Strawberry." Of "Crabs," the "Golden Beauty." Many fine "Russets," and some beautiful "Wisconsin Seedlings."

"Utters," "Graniwinkle," "Yellow Redstreak," "Daniel," and "June Sweet," were new to most, but were considered very good. I have here merely given those which particularly pleased *me*, another might make the tour of the room and present a somewhat different list.

There were several tables devoted to vegetables, displaying fine specimens of almost everything the kitchen garden affords—from the "72 lb. squashes" to "fancy potatos." The Exhibition closed with an animated sale of fruits and flowers.

Wisconsin possesses a fine soil and climate for all the "staple fruits," and they are frequently larger and higher colored than the same varieties at the East.

These Societies do much to correct the fruit nomenclature, which in new countries is liable to confusion.

Elsie.

The American Institute Fair in the Crystal Palace at New York has been eminently successful. We congratulate the Society on having so good a house. When shall we get a roof over our Horticultural Society again?

The United States Agricultural Society appointed its third Exhibition at Boston, for the 23d, 24th, and 25th of O tober.

The grounds selected for the show are located on Harrison Avenue, between Brookline and Chester streets, and contain about thirty acres.

The first object that attracts the attention of the passer by is a fine gateway, of imposing appearance, designed by Mr. John R. Hall, architect to the society. Two noble towers, each forty feet in height, support a splendid arch, that spans the entire width of the street. These towers contain the treasurer's office, with twelve windows upon the Avenue front, for the sale of tickets. Upon their summits were displayed the American ensign.

Entering the field, we are treated to the the novel and excellent feature of a vast area, *graded to a perfect level.* The field is now clothed in a most May-like mantle of green—the oats which were sowed on the land being well up. This will serve not only an ornamental purpose, but a very useful one, in keeping down tne dust that the myriads of feet and hoofs would otherwise create.

Nearly in the centre of the field appears a fine track for the trial of horses, describing in its elliptical circuit an exact half mile. Midway on "the home stretch," a pagoda-like tower, of beautiful proportions, rises to a height of seventy feet; and above it the American flag, thirty feet in length by twenty feet in width. The first story of the tower is designed as a gathering ground for the officers of the society, marshals and invited guests; the second story accommodates the judges; and the third will answer as a good look-out for those privileged to enter it.

On the west side of the track, seats for six thousand spectators were erected, in the most secure manner, capable of sustaining ten times the pressure to which they will be subjected.

The Committee of Reception consists of Hon. J. V. C. Smith, Mayor of Boston; his Honor Lieut. Gov. Brown; George M. Atwater, Esq., of Springfield; Charles L. Flint, Esq., (Secretary Massachusetts Board of Agriculture;) with others. These gentlemen were to receive the guests of the society at the President's marquee, and show them all needed attention.

Still further north was placed another beautiful tent for a Ladies' Saloon, where ices and other refreshments were obtained. Connected with this saloon is a Withdrawing Room, where, with the assistance of an officiating maid, bonnets and collars and curls may be becomingly adjusted, if disarranged amid the throng.

The Society's Committee Rooms were established in the handsome wooden building on the notheast corner. Here are arranged tables with stationary and other codveniences for every Committee.

More than three thousand feet of stalls were prepared, and with a canvass roof, with festooned curtains in front. Additional accommodations, arranged for sheep and swine, at the south end; and for neat stock, at the opposite extremity. At these points, several ranges of tents, about one hundred feet long by twenty feet wide, were stretched, affording adequate protection from rain and cold to the animals, and presenting a picturesque appearance to the observer. These tents, buildings, seats and stalls have been erected or arranged under the constant personal supervision of the President and Secretary, Marshall P. Wilder and Wm. S. King; who are faithfully devoting to the great work their entire time and energy.

Very numerous entries of stock, in the various departments, were early made; and some of the finest specimens of neat kine, both home-bred and imported, were on exhibition.

The officers of several of the New England Railroads expressed their readiness to transport stock to and from the Exhibition free of charge; and an announcement to that effect was made accordingly; but as the arrangement was not general, it was decided by the New England roads, and by roads in other States, to convey stock at *one-half the usual charge.* Railroads on such occasions would find it to their eventual interest to observe a *more generous economy.*

This was expected to be the greatest agricultural exhibition that America, and perhaps the world, ever saw.

Convention of Fruit Growers of Western New York.—This body met at the Council Chamber, Buffalo; about fifty delegates being present. The meeting was called to order by John J. Thomas, of Macedon, Wayne Co., President.

Upon motion of Mr. Barry of Rochester, the following business Committee were appointed: Messrs. Barry of Rochester, Allen and Coppock of Buffalo, Barrit of Lockport and Pinney of Brockport. Committees on Finance and membership were also appointed.

The afternoon session commenced at 3 o'clock, and Mr. Barry from the Committee on business reported that the diseases of fruit trees would be discussed in the following order: 1. Fire blight in pear, apple and quince trees. 2. Leaf blight in same trees. 3. Cracking of fruit. 4. Black knot on plums. 5. Mildew on early grapes.

Insects.—1. Curculio. 2. Apple borers. 3. Apple and Pear Insects. 4. Peach Borer.

The discussion to be continued until 5½ o'clock, and from 8½ to 10 o'clock to-day, also that the public be allowed admission during the afternoon and evening.

After a recess to allow exhibitors to arrange their fruit, the discussion of the subject of fire-blight was commenced, and was participated in by Messrs. Allen of Black Rock, Thomas of Maceden, Townsend of Lockport, Cadwallader, Coppock, Eaton and Mason of Buffalo, Barry of Rochester and others.

Mr. Allen thought the disease was the result of electricity in the atmosphere.

Mr. Thomas could not account for the disease, but thought it contagious and always amputated and buried the affected limb.

Mr. Cadwalader was of opinion that frost had something to do with it.

Mr. Townsend thought the disease resulted from trees being gorged with sap and acted upon by a moist atmosphere and intense heat, so as to rupture the sap vessels.

Mr. Barry had no theory of the disease. It was confined to certain localities, and could not be accounted for any more than the cholera. He did not know of any cure for it. His way was to plant two trees for every one that was killed by the blight.

Mr. Hood, of Lockport, thought the disease was brought on by excessive manuring, which generated an unhealthy gas, in some way causing the tree to overact. The only way to avoid it was to endeavor to secure a healthy and even growth.

Mr. Thomas, of Macedon, wished to say a word about the theory of the sap bursting the vessels, which had been assigned as the cause of the blight, and also of the rust in wheat. He had examined into the case and was convinced that the rust was occasioned by the growth of fungi. No pressure of the sap would burst the vessels.

Mr. Pinney, of Lockport, and Manley, of Buffalo, also related their experience in this matter of blight, but no effectual remedy for the disease was proposed.

Mr. Thomas, of Macedon, suggested as a means of arriving definitely at the varieties of pears most affected by the blight, that each member should in the morning bring in a list of pears most liable to blight, with a description of the soil in which the trees were grown and the mode of the culture.

FRIDAY MORNING, Sept. 14.

The convention re-assembled at 9 o'clock, Mr. L. F. Allen in the chair.

In accordance with the resolution passed yesterday, several members reported lists of pears most affected by blight.

The lists of pears most subject to fire blight were then handed in and read by the Chair. The following varieties were named in the greatest number of lists, those first in order having the most votes against them: Madeline, Bartlett, Glout Morceau, Le Cure, Passe Colmar, Stevens' Gennessee, Swan's Orange, White Doyenne, Lechel, Louise Bonnre of Jersey; none of the above having less than four votes.

A discussion on the picking and ripening of fruits was then entered into, in which Messrs. Barry, Coppock, Townsend, Hooker, and Hood took part, each gentleman giving his individual views and experiences in the same.

On motion of Mr. Coppock, it was agreed that members hand to the Secretary notes of their experience in the ripening of fruits.

The subjects of black knot on plums and mildew on hardy grapes were passed over, and the subject of the curculio was taken up.

Messrs. Thomas, Gardner, and Barry gave their methods of ridding their trees of the curculio; the former, by keeping pigs in the yard, the latter, by jarring the trees and catching the insects on cloths.

Mr. Townsend stated that in Lockport great success had been gained by paving the ground beneath the trees.

Mr. Allen attributed the exemption of his trees last year from the insect to the drouth.

Mr. Hood stated that he had experienced beneficial results from the use of sulphur in the destruction of the insects, although he was of the opinion that it was injurious to the tree itself.

Mr. Hooker had found advantageous results by placing chickens in the yards, also believed the insect to be migratory, and did not ascend from the ground to the tree as suggested by Mr. Allen.

Mr. Thomas observed that in shaking curculio upon white sheets he had noticed them fly from the cloth.

Mr. Allen stated that some kinds of his fruit had been stung by the insect, while others were exempt from injury.

Mr. Barry was of the opinion that the insect exhibited a discrimination or instinct in its attacks.

The subject of the apple tree borer was passed over, and that of "Insects attacking the fruit of the apple and pear trees" was taken up.

There was a large attendance of members, and an exceedingly fine show of fruits. It was said by several gentlemen well qualified to judge, that the collection of apples and pears excelled any former demonstration of the kind in this State. The Councils of the city liberally tendered the Society the use of their fine Hall, and every available space was occupied by the numerous collections.

The following is a list of the exhibitors:

Lewis F. Allen,	Buffalo,	Apples,	26	varieties.	Pears,	13	var.	Plums,	7	var.
Richard Bullymore,	"	do.	3	"	do.	3	"	Grapes	9	"
Jacob W. Banta,	"	do.	1	"						
Wm. R. Coppock,	"	do.	5	"	do.	29	"			
M. Cadwallader.	"				do.	5	"	Plums	7	"
Lewis Eaton,	"	do.	18	"	do.	29	"	do.	1	"

Ellwanger & Barry, Rochester,	Apples,	76	varieties.	Pears,	156	var.	Plums,	26	var.
A. Frost & Co., "	do.			do.	39	"			
C. L. Hoag, Lockport,	do.	36	"	do.	29	"			
H. E. Hooker & Co., Rochester,	do.	33	"	do.	73	"			
Hooker, Farley, & Co., "	do.	47	"	do.	22	"			
A. Hampton, East Hamburgh,				do.	1	"			
Loomis & Whitman, Byron,	do.	23	"						
Manley & Mason, Buffalo,	do.	43	"	do.	89	"			
J. S. Miller, "				do.	4	"	do.	2	"
H. P. Norton, Brockport,				do.	33	"			
A. Pinney, Clarkson,				do.	13	"			
G. G. Pratt, Buffalo,	Grapes,	9	"	do.	12	"	do.	4	"
Penfield & Burrill, Lockport,	Apples,	39	"	do.	71	"			
Jno. J. Thomas, Macedon,	do.	36	"						
Wm. P. Townsend, Lockport,	do.	10	"	do.	74	"			

The Chairman read several invitations to the society to attend exhibitions, &c. After which a discussion took place in regard to the place of holding the annual meeting. After several places had been named, and advocated by different members, a ballot was taken, and Rochester decided upon for that purpose.

On motion of Mr. H. E. Hooker, a vote of thanks to the City Council, for their liberality in giving the Society the use of the Hall, and remarks complimentary to the Buffalo members for their exertions in making the necessary arrangements for the meeting were made by Messrs. Hooker, Barry and others, and after transacting some unimportant business, the Society adjourned.

Jno. B. Eaton, *Secretary*.

A Short Gossip about the West, and the Fruit Grower's Meeting at Burlington. —*My Dear Sir:*—I have been much away from home of late, and now that I am at home I find myself quite too busy to indulge in writing, yet I must give you a few notes concerning the West and Western fruits and Fruit growers. First allow me to congratulate you that you have travelled the country between the Lakes and the Missisippi. I am sure that you have enjoyed your journey to Chicago, and return home, as I have done, thankful that you had lived to see the Garden of America, those vast prairies, the valley of the Mississippi—where nature has prepared a soil of the most wonderful fertility—the deepest and richest that the plough or the spade ever entered. All this you will readily assent to now that you have visited this wonderful country, and seen for yourself the growth of the trees and the size of the fruits.

From Chicago to Burlington on the Mississippi is a delightful days ride. You leave Chicago at 9 o'clock in the morning and reach Burlington in the evening about 8, having had ample time to discuss a good dinner at Mendota. The road is in excellent order, fine coaches, polite conductors and every thing in excellent trim. The country is prairie nearly all the way; but do not not suppose it is monotonous, for on either side, villages, bran new and prosperous looking, enclosed farms with immsense corn fields like forests of poplars, great herds of cattle on the open prairies, luxuriating among the richest pasture, bits of woodland looming up here and there like islands in the ocean—these all invest the landscape with sufficient variety. It was all new to me and I enjoyed it right well, as I also did the prodigious stories which were related by every new passenger we picked up, concerning the growth of towns, prices of lands, &c., &c. Sometimes I lay up a stock of reading material when starting on a journey, but here I had no desire to read except in the book of nature. A new field of study was spread before me.

Burlington, Iowa, is pleasantly situated on the west bank of the Mississippi, and contains at this time some 9 or 10,000 inhabitants. Part of the city is in a sort of basin, some 8 or 10 feet above the level of the river, with a bluff in the rear over 100 feet high. In other places the ground rises gradually from the river to the top of the bluff. As we crossed the river in the evening we were reminded of Newburg on the Hudson. The broken character of the ground renders the grading of streets a work of considerable labor, but it is going on vigorously. Spacious stores and comfortable dwellings are in process of erection on all sides, and there is every indication of substantial prosperity. Railroads have given this city a new birth, and her progress hereafter must be rapid. The population is of a superior character, the situation healthy, and there is every inducement for business men who are looking to the West to settle there. What interested me most was the orchards and gardens; you will say, "Of course." I have never been taken so much by surprise as I was in visiting some of the gardens around Burlington. My curiosity was awakened by some specimens sent into the exhibition rooms of the Fruit Grower's Society. *Beurre Diels* weighing a pound and a half; *Swan's Orange* about as large; *Louise Bonne de Jersey*, and *Vicar of Winkfield*, enormous. Some monster *Bartletts* had been preserved in ice. Such a sight in the way of pears I have never seen, and I at once resolved to visit the trees and know all about them. Dr. TALLANT, to whom I feel greatly indebted for many kind attentions, immediately conducted me to the garden of W. F. Coolbaugh, Esq., the well known Banker of Burlington.

His residence is on the top of the bluff and his garden contains scarcely an acre—there I found the pear trees—beautiful pyramids, all on quince plants about 7 or 8 years, now 8 to ten feet, or 12 feet high. The early varieties were of course gone, but I found on the trees *Beurre Diel*, *Beurre d' Anjou*, *Vicar of Winkfield*, *Glout Morceau*, *Beurre d'Aremberg*, and others, all nearly twice as large as good specimens grown in New York.

The trees were remarkably vigorous, and hung full of fruits—what a sight! And all this without any special manures or culture of any kind—the ground was merely kept clean. One tree of *Glout Morceau* was blighted.

Dr. TALLANT took us next to his own garden, which is situated in that part of the city which I have described as being in a basin. The garden is small, but filled to overflowing with the choicest fruits and flowers, and all in the finest possible condition.

His pear trees are still finer than at Mr. COOLBAUGH'S, and the specimens still larger. *Brandywine* I observed a noble tree, and the Doctor told me that it bore specimens that weighed a pound! The trees were the same age and the varieties much the same as at Mr. Coolbaugh's. Quite near to Dr. Tallant's we were shown a garden which was formerly owned and planted by his Excellency Gov. Grimes; planted at the same time as the others. The trees looked well, but had not received proper care latterly.

The Governor has a new residence on one of the highest points of ground, commanding an extensive and beautiful view of the river and surrounding country. His garden contains a large and fine collection of fruits, but the trees are young and not yet in full bearing. These which I have mentioned are all town gardens, and I assure you I do not know anything here in our famous valley that can equal them. What do you think of this?

The nurseries are no less wonderful. I observed apple trees one season's growth from the root graft, nearly 6 feet high and stout in proportion.

Messrs. Comstock & Avery have, in various stages of growth, some 600,000 apple trees! Messrs. Neely and Brother have also a fine nursery of some 30 acres, with a fair proportion of the various fruits and ornamental articles. In these nurseries I observed that the Pear, Quince and Plum do not flourish on the deep prairie loam as they do on the bluffs,

where the clay and limestone are nearer the surface. I was much surprised to see the Quince do so poorly; the shoots were slender as needles and had no leaves on. The Pears had been leafless nearly a couple of months. There is something to study here, and I wished for a month of time to look into the matter thoroughly.

You will see this matter touched upon in the proceedings of the Fruit Growers. The exhibition of fruits made by the society was a splendid one. I really mean *splendid*, especially in apples. About 300 feet of tables were loaded with heaped-up dishes of monstrous fruit. You must pardon a free use of adjectives.

In one collection, that of Mr. A. Hillery, I should think that the specimens ranged between 18 and 25 ounces, and fair as wax work.

Yellow Belle-flowers, Ortleys, Maiden's Blush, Rambo, Fall Pippin, Vanderveer, &c., so large that I barely recognized them.

The large hall was most tastefully and conveniently arranged. There were between 40 and 50 contributors from Iowa, Illinois, Wisconsin, and New York. I have never before seen so large a collection of fruits gathered together from so wide an area; from this you may judge how novel and instructive it was. I cannot go into any details respecting these collections farther than to say that the largest were

Messrs. Avery and Comstock, Burlington, - - -	82	varieties of	Apples.
W. Stewart & Son, Quincy, Ill. - - - - - -	82	"	"
Edson Harkness, Peoria, Ill. - - - - - -	42	"	"
Finley & Dwire, Davenport, Iowa, - - - - -	47	"	"
John Belanger, Dover, Ill. - - - - - - -	47	"	"
A. R. Whitney, Franklin Grove, Lee Co., Ill. - -	42	"	"
Arthur Bryant, President of the Society, - - -	75	"	"
D. F. Kinney, Rock Island, - - - - - -	26	"	"
A. G. Hanford, Waukesha, Wis. - - - - -	28	"	"
Messrs. Leonard, Burlington, - - - - -	65	"	"
Messrs. Neeley & Brother, Burlington, - - -	22	"	"
Rogers & Woodward, Marengo, Ill. - - - -	33	"	"
Chas. H. Hibbard, " - - - - -	40	"	"

A. Hillary, of Burlington, filled a table with superb specimens, forming the most attractive collection in the room.

Of New York contributors, there were Messrs. Thorp, Smith, and Hanchett, of Syracuse, 71 varieties of pears and 41 of apples.

T. C. Maxwell & Brother, of Geneva, 48 varieties of pears, and Primate and Wagner apples.

Manly & Mason, Buffalo, a collection of pears.

Ellwanger & Barry, 144 varieties of pears, 89 varieties of apples, and 79 varieties of Plums.

Dr. D. T. Hull, of Alton, celebrated as a successful peach grower, 5 varieties of pears and 2 of peaches; his large collection of peaches intended for the exhibition did not arrive in time.

These are but a part of the great display, enough to show what a gathering was there. You will find all the details in the published proceedings as soon as they get into print.

The discussions took a wide range, and will be read with great interest.

I had so many things to see in a short visit, that I was reluctantly compelled to absent myself from the rooms a considerable portion of the time.

I can say that I have never seen a meeting of this kind devote itself to its proper business with greater assiduity. The members were all men of real western energy of cha-

racter—workers, intelligent and communicative, as their proceedings will show. This society has a wide field to labor in, and a great work to perform, but it is fully equal to it. The people of Burlington must be accorded the highest praise for the liberality and taste displayed in making arrangements for the meeting and for the generous hospitality towards the members and delegates individually.

His Excellency, Gov. Grimes, was with them from beginning to end, and participated heartily in the proceedings. At the close a supper was given at which his Excellency presided. A number of appropriate sentiments were given and responded to by brief and spirited speeches. That of Gov. Grimes and W. F. Coolbaugh, Esq., I have never heard surpassed on similar occasions; both were impromptu, but pertinent and effective.

The "Daily Democratic Press," of Chicago, was ably represented by Wm. Bross, Esq. and its "Rural" correspondent, M. L. Dunlap, Esq.

The Chicago Democrat was well represented by J. C. Brayman, Esq., who made a very good report of the proceedings.

We all left Burlington well pleased. The Society had a pleasant and profitable meeting, and we may expect to see it turn out in its strength to our Rochester meeting next year. Then, if we live till then, we shall see something of American Fruits.

Excuse these hasty rambling notes and believe me, Yours,

P. Barry.

Chicago Exibition.—The Illinois State Fair held at Chicago last month has been one of those events which the *Horticulturist* should not pass over. The pulse of "Young America" beats so strongly in that direction that an old-fashioned doctor might fear a rush of blood to the head, did he not know the constitution of the patient would bear a constant pressure of fever heat.

By invitation of the Society, and of the Central Illinois Railroad Company, we visited the Fair, and can safely say that the half had not been told us regarding this portion of our great Confederacy. Chicago is reached from Philadelphia by continuous connections of different railroads, via Pittsburgh, in forty to forty-four hours with ease and comfort. The first view of the new city is striking, and we will add astonishing; it may be doubted if the world ever saw such rapid progress. Twenty-five years only have elapsed since the Indian inhabited the site where is now a great city of eighty thousand inhabitants; fine houses of elegant structure, models in their way inside and out, skirt the lake and adorn the interior of the city; the depots are magnificent, and this is all aided by the most beautiful building stone and fine bricks, the colors differing from any other American structures, thus giving that indefinable charm to the eye of the traveller, of novelty when combined with good taste. We shall take occasion hereafter to return to these subjects; our business is now with the State Fair.

The collection of fruit surpassed in some particulars that at Elmira. The apples, which seem to be thoroughly at home in the soil of Illinois, were surprisingly beautiful and large; the pears not so good this season as in Western New York, but still very fair.

The apples known at the eastward were so much larger and finer here that we scarcely recognized them; the Belle-flower which have deteriorated at home were in greater perfection than we have ever known; the Newtown pippin and Rambo deserved the same praise. There were numerous seedling varieties not yet named, of great merit.

The Catawba grapes were particularly large and delicious, especially those from Hennepin, Illinois, and Kelly's Island, in Lake Erie. The wines exhibited, Catawba, Bland, and Isabella, were highly creditable.

The collection of agricultural implements was remarkable. Chicago seems to manufacture almost every thing, and the wonder grew at every step at the progress made by this "Garden city," our visit to which will remain among our most agreeable reminiscences, where private hospitality, the most generous and kind, was mingled with society of the truly intellectual and progressive.

From Chicago we proceeded to Galena, near the Mississippi, and examined the lead mines, returning via the Illinois Central Railroad, which runs directly through the state to Cairo; stopped at St. Louis, and thence visited Cincinnati, thus having a fair view of the West, and a never-to-be-forgotten ride through the immense prairies. Mr. Barry, in another article, has forestalled us in admiration, and wonder, and adjectives, to which, however, we fully subscribe, but must let our reminiscences subside into something of a calm before we can record the wonders of this, onother NEW WORLD, just opened to man by that civilizer, the Railroad. Illinois has now a population of a million and a half, against 157,445 in 1830!

PENNSYLVANIA HORTICULTURAL SOCIETY.—A stated meeting of this Society was held on Tuesday evening, at Concert Hall. The display of vegetables was quite large. A fine display of grapes were shown by M. W. Baldwin, Isaac B. Baxter, and the gardener to John Anspach, exhibited several clusters of the white Syrian grape. John Pollock, gardener to James Dundas, received a first premium for the best collection of twelve plants. Robert Kilvington received a special premium of $2 for a pair of bouquets, and a pyramid of indigenous flowers. A specimen of the Graslin Pear, a foreign variety, was exhibited for the first time, by Robert Buist. The Chairman of the Committee on the Twenty-seventh exhibition recommends the society to purchase tents for future exhibitions, as the last one in Penn Square was eminently successful. A communication from the Secretary of the Harmonia Sacred Music Society was read, requesting the appointment of a committee on the part of the Society, to confer with one emanating from their Association, to take initiatory steps in the erection of a hall of larger capacity than any at present existing; and, on motion, a committee of three was appointed. Absence must excuse a longer notice this month.

THE SEASON CLOSES.—The great season of Exhibitions has now closed. Our journal has recorded as much of their doings as was possible; the greatest ethusiasm has prevailed every where, and we close our number with the strongest impression that no Country and no period of the world ever saw such a happy and industrious population as now peoples our continent. The West bears off the palm in some particulars, but we are not therefore disposed unjustly to undervalue the activity of older settlements.

EVENING PARTY APPLE

UNIV. OF MICH.

Some Neglected Trees and Shrubs.

THERE are many beautiful and valuable trees that have not found their way generally into cultivation; we can count but *one* specimen of Cedar of Lebanon of commanding size in the United States, probably from the circumstance that the seeds rarely, if ever, vegetate when imported. Our ancestors were not much in the habit of importing trees, and we now lament the deficiency of the variety that so much delights the traveller abroad. That single specimen is in Westchester County, New York, and is a noble and expressive, as well as historical tree. This cedar should not be neglected by planters; its growth is thought to be slow, and too few of us are willing to purchase what will not attain some stateliness in the lifetime of an individual. But it is usually starved and stunted in a pot before it is planted out; then most generally treated to a poor sandy, dry soil. In a good, firm, loamy soil, at least in this country, it will nearly rival the Deodar in rapidity of growth; in a rich soil, rather moist, this beautiful tree is a fast grower, though this is contrary to the received opinion.

The most beautiful trees are frequently the most rare among us; even some which are native continue extremely scarce. As an instance, the Magnolia macrophylla, a native of Florida and perfectly hardy here, is too seldom met with in perfection, and is scarce in most nurseries, though a demand is producing its sure result, a supply. The long leaves, peculiar growth, and superb flower, all point it out as one of the most desirable and ornamental.

The Gordonia pubescens, and the lasianthos are rarely seen; we have a specimen of the first forty feet in height, which annually sheds in September its thousands of single camelia-like flowers, that fairly perfume the air. It is hardy in this latitude on high ground, and after it is once established is never injured by cold.

The Magnolia grandiflora, that most superb of evergreens, is hardy in some situations near Philadelphia. Two large specimens are growing on the farm of Owen Sheridan, Esq., at Chestnut-Hill, and have never been protected within the memory of man. Annually it gives forth its superb blossoms, which are sent round the neighborhood in profusion. Other specimens exist and flourish here; but in latitudes a very little south of this city they have nothing to contend against. At Norfolk and Richmond they attain great size, and fairly sparkle in the sun, yielding a second bloom in August. Plant it, all who can obtain it, if only a single tree.

The Holly is a sadly neglected tree, but from the recent notices of it may become ere long a favorite native. While we are courting the growth of half hardy foreigners, let us not omit the planting of one of the best of our own.

The Virgilia lutea, or Yellow-wood, is extremely rare and scarce in the nurseries. A native of Tennessee, and indigenous to but a small district, the seeds have been difficult to procure, and here it rarely perfects them. Its fine racemes of flowers, beautiful leaf, peculiar stem, and the superb autumn yellow of its foliage, make it a

favorite wherever known. Efforts have been made to procure the seeds, and it may become, ere long, more common. It should never be omitted where variety is consulted.

The Celtis crassifolia is in the same list of the rare and beautiful, and for the Southern States the Styrax grandifolium* and lævigatum, the Andromeda mariana, the Myrica cerifera, Hopea tinctoria, Ostrya Virginica, the June berry, the Itea Virginica, the Cyrilla racemiflora of Virginia, the Viburnum prunifolium, and a vast many which should long since have obtained a footing among us, are yet known to few. An enumeration such as we have briefly attempted may serve to call attention to a list which could be greatly extended. Merely naming them here will probably call out from some of our correspondents facts, and opinions, and experiences, which will be valuable.

Of native fruits we have neglected to prove the value of the wild Virginia plum, which the Abbé Correa said, if cultivated, would equal that unknown article "the nectar of the gods." The Custard Apple, *Anona triloba*, is rarely included in any list for public or private cultivation, and yet it is one of the most remarkable of our fruits—the only tropical looking tree product that we have; highly ornamental and every way worthy of attention and care.

The Persimmon, *Diaspyros Virginiana*, too, is a beautiful tree, and the fruit eaten at the happy moment is worthy more attention than it has yet received. The fruit of the Persimmon varies much even in the wild state. Some are so exceedingly astringent that it takes a very severe frost to render them palatable even to an opossum; others are so accommodating as to afford a *glout morceau* long before winter pears are ripe.

The Persimmon has a fine green foliage, extremely grateful to the eye, and it should be employed occasionally in ornamental planting.

The Buffalo Berry, *Shepherdia argentea*, among the smaller trees, may also be mentioned as one of our too long-lost natives. No plant with which we are acquainted has berries which so universally please,—rich in their deep scarlet color,—and almost transparent in their pure waxy hue,—the most unsusceptible to the pleasures of an arboriculturist, could not pass it without loitering to admire. Its scarcity is perhaps as much owing to the difficulty of obtaining good seeds as from any other cause. Bearing seperate sexual organs in different plants, the berries are worthless unless grown in the vicinity of a male tree. It may, however, be readily increased from layers.

There are few small trees prettier than our Copal Sumac, *Rhus copallina*, with its peculiar winged leaves; but though easily to be obtained in almost every state, it is quite unknown in cultivation. *Fortunately* a foreign nurseryman, in his catalogue got up for Americans, advertises it amongst his "*Plantes Nouvelles*," at "only" .75; so having got a foreign reputation, we shall soon find our dollars flying in its direction as a "new" introduction, and perhaps some society awarding a gold medal for its exhibition for the first time!

We might proceed with a list of many other neglected trees, and hereafter we may

* Styrax grandifolium is perfecrly hardy here, and most probably would be in any part of the States.

do so. A study of the peculiarities and forms of trees in both their summer and winter aspects, is one of the most agreeable, instructive and pleasing occupations; it gives pleasure wherever we are. In travelling, when time is not allowed to dip into geological or botanical research, every tree you pass and can name, is recognized as an old friend.

A *beautiful* tree, considered in point of form only, must have a certain correspondence of parts, and a comparative regularity and proportion, while inequality and irregularity alone will give a tree a *picturesque* appearance, more especially if the effects of age and decay, as well as of accident are conspicuous: when, for instance, some of the limbs are shattered, and the broken stump remains in the void space; when others, half twisted round by the winds, hang downwards; when others again shoot in an opposite direction, and perhaps some large bough projects sideways from below the stag-headed top, and then as suddenly turns upwards, and rises above it. The general proportion of such trees, whether tall or short, thick or slender, is not material to their character as *picturesque* objects; but where beauty, elegance, and gracefulness are concerned, a short thick proportion will not give an idea of those qualities. There are certainly a great variety of pleasing forms and proportions in trees, and different men have different predilections, just as they have with respect to their own species; but no person is to be found, who, if he observed at all, was not struck with the gracefulness and elegance of a tree, whose proportion was rather tall, whose stem had an easy sweep, but which returned again in such a manner that the whole appeared completely poised and balanced, and whose boughs were in some degree pendent, but towards their extremities made a gentle curve upwards, as in many specimens of the Norway fir: if to such a form you add fresh and tender foliage and bark, you have every quality assigned to beauty.

EVENING PARTY APPLE.*

BY W. D. BRINCKLE, M. D.

SIZE, small, 1¾ of an inch long, by 2⅜ broad; *Form*, roundish oblate; *Skin*, nearly covered with red, in stripes on a whitish-yellow ground, rich whitish-yellow at the eye, numerous light russet dots; *Stem*, ¾ of an inch long, by $\frac{1}{12}$ thick, inserted in a wide, deep cavity, occasionally russeted; *Calyx*, small, closed, set in a moderately deep, slightly plaited basin; *Core*, medium; *Seed*, grayish brown, short, plump, obtuse, $\frac{5}{7}$ of an inch long, ½ wide, ¼ thick; *Flesh*, yellowish white, tender, juicy; *Flavor*, pleasantly saccharine and spicy; *Quality*, "very good" if not "best;" *Maturity*, January to March; *Wood*, young shoots reddish, old wood grey.

[This apple, from its appearance no less than its qualities, is destined to become a favorite.]

* See Frontispiece.

THE NEW CHINESE POTATO, OR YAM.

Continued from page 509.

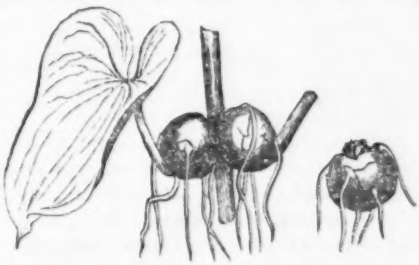
The flowers are diœcious, that is, the sexes growing on different plants, disposed in speciform branches at the junction of the leaves. The corolla of the males is composed of six petals of a pale-yellow color; the three outermost ones rounded, and the three inner smaller ones of a roundish oval. The stamens, six in number are extremely small, though well defined; and the anthers are oval and supported by short filaments, grouped freely in the centre of the flower. As the male plant only has been introduced, the female cannot be described, and consequently no seeds produced before the latter can be produced.

The roots, or tubers, vary in length and thickness, according to the nature of the soil, in reference to lightness, depth, and tenacity, which, no doubt, influences their form and mode of development. The maximum size to which they grow is about two inches in diameter, the larger end tapering upwards to the size of the finger, as indicated in the cut aside. They are covered by a brownish fawn-colored skin, pierced by numerous rootlets. Under this envelop, is a cellular tissue of a white opal color, very crispy, filled with starch and a milky, mucilaginous fluid, with scarcely any ligneous fibre. In cooking, this tissue softens and dries, but to a greater degree, like that of the common potato, the taste of which it much resembles. Each plant often produces several tubers, though generally it has but one. They usually weigh about half a pound each, but sometimes three pounds, running perpendicularly into the earth to the depth of a yard. M. Decaisne, of France, says, however, that those cultivated by him rarely exceeded 15 to 20 inches in length.

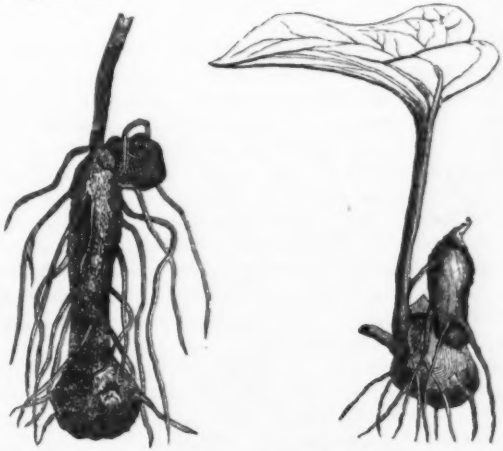
The cultivation of this yam appears to be easy and simple. M. Decaisne, in the "Revue Horticole," for 1854, has described the method adopted in China, which is nearly as follows: In autumn they choose the smallest tubers, which they preserve from injury by frost by covering them in a pit with earth and straw. The spring succeeding, they plant them near each other in a trench, in well-prepared soil. When they have put out shoots one or two yards in length, they cut off the joints and leaves containing the buds and plant them for production. For this purpose, they form the ground into ridges, on the top of which a shallow trench is made with the hand or some suitable implement, in which these joints are planted, covering them slightly with fine earth, with the leaves rising just on the surface. Should it rain the same day, they shoot immediately; if not, they water them gently until they do. In fifteen or twenty days, they give birth to new tubers and stalks, the latter of which it is necessary to remove from time to time, to prevent them from taking root on the sides, and thus injure the development of the tubers already formed.

The method which has been found to answer best in France, according to "Le Bon Jardinier," for 1855, consists in cutting the tubers into fragments of moderate size, placing their crowns, or eyes, in small pots, in April, and then transplanting them into a deep, rich soil as soon as the spring frosts are no longer to be feared. Notwithstanding the plant has a tendency to plunge its roots into the earth perpendicularly, any distortion to which it might be liable in the pot will not be in the least prejudicial to its future growth, as is the case with other yams. It is even thought that its cultivation in large pots, buried under ground, might be successfully adopted in some cases, particularly where the soil is of a permeable nature, which would allow it to extend its roots to a depth of more than a yard.

If it is desired to multiply the plant rapidly, in a high latitude, it can be done by means of suckers, or slips. To this end, there may be cut in June or July as many slips as there are sets of leaves on the vine, and plant them side by side under a glass in a light, sandy soil, sufficiently deep for the bud at the base of the leaves merely to be covered. The better way is to let the leaves remain entire, unless they are disproportionably large. In about five or six weeks, the slips will take root, and present at the angle of each leaf a small tuber about the size of a pea, as denoted in the cut.



These scarcely increase in size during the season, but become sufficiently ripened, on ceasing to water them, to replant in the spring, when they will grow with as much vigor as if produced from the cut tubers, as shown in the figures below.



In this manner, each plant may be made to yield a hundred fold. The reproduction from the vines, however, may be brought about in more temperate latitudes, by planting them in a garden in the open air. In this case, it is better not to cut up the vines, but

to bury them horizontally just below the surface, with the midrib of the leaves resting on the ground. Should there not be sufficient rain, the soil must be kept moist by slight waterings at the close of the day.

If we may judge by the stagnation of its vegetation during drought, this plant seems to require irrigation, or watering. The leaves and vines are small considering the size of the roots, and will probably allow of close planting, say eight or ten to the square yard. The vines in general, when not propped up, spread over the ground without taking root, intertwining with each other; but do not grow to that length as when propped up by poles or stakes. In one instance, in France, a strong pole about ten feet in height above ground was inserted near one of these plants, which wound itself regularly around it and soon overreached its top. This yam requires no cultivation other than that of eradicating the weeds, as the operation of earthing-up is regarded as quite superfluous.

What may be the result of meteorological influences on this product in different climates and seasons cannot at present be determined. In the neighborhood of Paris, last year it made rapid progress; the long vines growing vigorously and putting forth an abundance of leaves. Towards August, many flowers of the male kind appeared, and by the middle of September the vegetation was insensibly checked, assuming a yellow tint, indicating that the period of maturity of the tubers was near at hand, which, however, were not dug before the 6th of November.

The expense of labor may be more than that of the potato, but it will be amply compensated by the prolific result. To facilitate the extraction of the tubers from the earth, it is recommended that they be planted as near as practicable in bunches, or hills.

This root, it will be seen, is voluminous, rich in nutritive matter, and can be cooked in every respect like the common potato, and can even be eaten in the raw state. It also bids fair to become a source of as much profit to the cultivator, richer in fact in nutriment, and therefore is believed to be destined to render even greater service to the world.

GRAPES IN NEW YORK.—The New York market, says the *American Agriculturist*, has been unusually well supplied with excellent grapes during the present season. The number of persons in the vicinity of the city who have a few vines about the homestead yielding a smaller or larger suplus of this fruit for sale, has wonderfully multiplied dur- a year or two past. A gentleman residing in Brooklyn, stated to us the other day that, although living upon a lot 32 by 100 feet, his two children have cultivated a few vines, from which they gather and sell grapes enough to supply themselves with books, pocket money, and most of their clothing. We do not remember any former season when this fruit has been so abundantly offered for sale everywhere throughout the city, not only in the markets and at the confectioners, fruit stores and groceries, but also on every street corner. We introduced them into the regular weekly Prices Current during the past month where the wholesale prices has been quoted at 3c. to 4c. per lb., for ordinary; 5c to 8c. for medium, and 9c. to 12c. for superior.

But these prices have uot referred to those now so well known in this market as "Dr. Underhill's Grapes," for these have been wholesaled readily at 15 cents per lb. Judging from the immense number we have noticed selling every where throughout the city, and from the constant crowd of purchasers at the sales depot, (293 Broadway) we think the Doctor is reaping a golden harvest in return for his patient and long continued experimental efforts to bring the cultivation of this delicious fruit to perfection, at his Croton Point vineyards.

HINTS TO BEGINNERS IN ORNAMENTAL PLANTING.

BY A. D. G., CLINTON, NEW YORK.

HOW shall I lay out my grounds? Where shall I run my walks and roads, where plant evergreens and where deciduous trees, where make groups and where not, where put my summer-house, and where my flowers and vines? Questions like these are repeatedly asked, throughout the length and breadth of our land, but they are not always satisfactorily answered. Loudon, and Downing, and others, are consulted in haste, but a hasty reading of these authors does not give the desired information. Our rural improvers are bewildered amid the mazes of "The Beautiful" and "The Picturesque," "Beauty of Expression," "Relative Beauty," "Recognition of Art," &c., and the books which treat of them are thrown aside in disgust. Now, there are a few general principles and rules to be observed in ornamental planting, a simple statement of which may remove difficulties from many minds. The writer of this article does not claim any superior knowledge of the subject, but ventures to offer to beginners a few plain hints suggested by his own observation and experience.

To make these remarks quite practical, let us, instead of stating principles in an abstract form, suppose the very common case of a man who wishes to build a house, and lay out grounds of small extent in the neighborhood of a town. The first thing you will wish to do, my friend, is to determine upon a proper site for your dwelling. If possible, let it be on a slight elevation above the street, let your house stand back several rods from the road, so that your parlor and bed-room may not be gazed into by every passer-by, that you may not be disturbed by the noise and dust of the highway, and that you may have room in front for a spacious lawn, in which to plant ornamental trees, shrubs and flowers, and where your children may sport in safety?

If the ground immediately around your house has any unsightly roughnesses, remove them. But think twice before you alter materially any of the natural features of your place—a wart on the cheek of beauty is one thing, and a dimple is another. Are there any wet, "springy" spots in your ground? any that you may even suspect of having a superabundance of water during the rainy months of the year? Then drain them thoroughly. If you do not, your trees and plants will die; or, if they contrive to live, they will make only a stunted and unhealthy growth, and be a constant source of disappointment and mortification. Draining completed, then deepen your soil by trenching or subsoil plowing. You may at first think this all labor lost,

but you will not think so in a few years. Break up your ground thoroughly, and then all surplus water will pass off readily into your drains, your trees and shrubs will speedily become established, and grow luxuriantly in defiance of the fiercest droughts, and your lawn will retain throughout the summer the beautiful verdure of spring. A good lawn is one of the most desirable features of a country residence, and no pains should be spared to secure it. Grass is among the first things to gladden us in spring; its greenness, and the fragrance of its frequent mowings are always grateful to the senses during the heats of summer; and it takes on new shades of loveliness amid the desolations of autumn. Provide, then, for a good lawn by a liberal dressing of manure, deep plowing, and by sowing a sufficient quantity of grass seed and clover.*

This preparatory or foundation-work being done, you will wish to lay out your walks and carriage road. In doing this, study convenience. Do not, however, set your street-gate directly opposite your front door. A house appears generally to the best advantage when viewed obliquely. Let your foot-path and carriage-road enter the grounds a little one side of the middle of your residence, and approach it by easy curves; and, if possible, let there be some apparent reason for those curves. If you wish a private path and a road leading to the kitchen and rear of the house, let them run in straight lines through some retired part of the grounds. You will also need paths leading from your house to the kitchen garden and flower garden; perhaps also to an arbor, a water-fall, a rustic seat, a vase or other objects of interest within your premises. Your main walks should be from five to ten feet wide, varying with the dimensions of your grounds and your purse; the soil should be dug out one foot deep, and the trench filled with cobble-stones, and the whole covered with gravel. In this way alone can you be sure of a dry and firm walk at all seasons of the year, and one free, in a good measure, from weeds. Your carriage-road should be made in the same thorough manner. Your minor paths need not be as wide, nor be made with the same care, as your main walks. For paths of this description it has been recommended simply to remove the sod or top soil, round off the surface, put on siftings of coal-ashes, and finish with fine gravel. But do not be lavish in the number of your walks and pleasure roads; it costs money to make them and keep them in repair. They will not take care of themselves. Consult your purse before laying out a single unnecessary path, and make only as many as you can keep in perfect order.

A few words now about planting trees. If your house is expected to have a porch or piazza, go stand on the ground it will occupy; look out, also, in imagination, from the windows of your parlor and dining-room, and see what desirable views they will command of the surrounding country,—distant hills, a sheet of water, a church-spire, or peaceful valley—then you may consider it settled that no trees should be planted which would hide or materially mar such prospects. Are there, moreover, any unsightly objects that you would wish to hide? If so, plant a dense screen of trees in

* It is recommended by Downing and others, to sow three parts of red top grass seed to one of white clover; and, where immediate effect is wanted, at the rate of three bushels to an acre.

such quarters. You will need also to surround your premises with a belt of trees and shrubs for the sake of protection from cold winds and from the gaze of the public. He who has had his choicest trees and shrubs broken down or beaten out of shape, and his fruit and flowers scattered on the ground by driving storms, need not be told of the importance of shelter from the winds. Moreover, a place is wanting in a *home-look*, if all parts of it are open to the direct inspection of the street. Snugly nestled among trees and vines, it has an air of peaceful seclusion and comfort. When within the gates of our own premises, we wish to feel that we are lords of the soil, that we may lay aside formal restraint, may wear our oldest coat and most shocking hat, may romp and roll on the grass with children, and do anything we please, and yet not be exposed to the stare and criticism of street-goers. Moreover, there are few houses so perfect in proportion and finish as not to appear better if partially screened by a drapery of trees and vines. Is not even the sky most beautiful when seen through openings in the clouds, and the finest views of the ocean, are they not those caught through vistas of mountains and forests? Indeed, nearly all objects interest us most when a part of them only is seen, since the imagination conceives greater things of what remains unseen. So, many a country residence, though faulty in some respects, if it were seen standing bare and naked at all points, pleases the taste and engages the heart when partly concealed, and allowing only glimpses of it to be caught here and there from favorable positions. And if it might not seem too harsh a judgment of others, I would say that the practice of leaving one's premises open to the street, for the sake of being gazed at, implies a love of display on the part of the owner which is far from being commendable. To see a lawn filled with statuary, and vases, and miniature temples, and rock-work, and arbors, and gaudy flowers, paraded like the wares of a tradesman to catch the eye of the public,—how can one help feeling disgust at such vanity and corrupt taste! A love of retirement and modest seclusion is not exclusiveness, and should not be confounded with it. For reasons like these, I would say, encircle your grounds (except at those points where views are to be preserved,) with belts of trees. Let these belts run in irregular, waving lines, and be composed of deciduous and evergreen trees mingled together, and of the latter the more the better. Before the openings left for prospects, plant low trees or shrubs to preserve the privacy of your grounds, and yet allow one to see the surrounding landscape. And these openings should not be stiff, square places, cut out like windows in the side of a house, but should have flowing outlines, the whole looking as though the trees were gracefully holding back their branches to allow you a sight of the scenery beyond them. Wherever you can plant hedges as substitutes for fences, do so; and where you cannot, set masses of shrubs with clambering vines to conceal your boundries.

When riding in the country in summer, and passing, it may be, through valleys, have you not sometimes noticed shady nooks, cool recesses amid thick, overhanging boughs? And did they not always excite pleasing emotions? Then endeavor to create some such scene in a quiet corner of your own premises. Have you not sometimes sat upon a hill-side beneath a spreading tree or grove, and looked off upon the

surrounding landscape; and can you fail to remember the enjoyment of such occasions? Then, if your grounds furnish any such point of observation, seize upon it, and either build an arbor there and cover it with vines, or plant trees upon it and place beneath them a rustic seat.

Trees are beautiful objects when clustered in groups and mingling their spray together, or when standing singly and developing themselves fully on every side. If you have room in your premises, plant several groups of different form and size. In one, set the different varieties of the same tree together; in another, different kinds of trees, but those which harmonize in their general outline and branches and leaves; and in another, those which have a general resemblance, but the color of whose foliage, especially in autumn, is strongly contrasted. And in your groups of round-headed trees, set occasionally larch or fir-trees, whose pointed head shall rise in bold relief to the rest and give an expression of variety and spirit. Or, without following any prescribed rules, search out in field or forest some of natures finest combinations and endeavor to reproduce them. And whilst arranging your groups, have an eye to the useful, and plant one or more so as to conceal the premises in the rear of your house from the more ornamental grounds in front. At suitable intervals between your groups, plant single trees. And do not in all cases cut away their lower branches. Here and there, let at least one tree grow, from its root to its crown, as the God of nature designed it to grow, and see what a model of symmetry and grace a tree will become where it is let alone. Let it "stretch its boughs upward freely to the sky, and outward to the breeze, and even downwards towards the earth, — almost touching it with their graceful sweep, till only a glimpse of the fine trunk is had at its spreading base, and the whole top is one great globe of floating, waving, drooping or sturdy luxuriance, giving one as perfect an idea of symmetry and proportion as can be found short of the Grecian Apollo itself." And there is a great variety of trees for you to select from. Some are desirable for their earliness in spring, as the larch, mountain ash and the maples; others for their gracefulness of form and the motion of their branches, as the elm and willow; others for their deep verdure in summer, as the horse chesnut, sugar maple and linden; others for their brilliant colors in autumn, as the ash, dogwood, maple and oak; others for the tenacity with which their foliage retains its greenness, in spite of frosts, late into autumn; and others still for their beauty of proportion, the neatness and fine color of their branches and twigs even in winter.

You will doubtless wish to plant evergreens as well as deciduous trees. They are desirable for the protection they afford and for their cheerful expression during the stormy months of the year. Set a few of them among your groups of deciduous trees; plant them here and there in seperate masses, mingling the different forms and shades of color. Reserve your finest specimens for planting singly upon the lawn. By no means cut off their lowest branches, for this class of trees are beautiful just in proportion to their geometrical regularity from the branches which sweep the ground to the apex.

Set the rarest and most delicate trees immediately around your dwelling, and the

larger and more common as you recede from it. Near your house, let there be occasional patches of unbroken lawn, and as you go from it let the trees approach nearer and nearer together until they mingle with the belts at the boundaries.* As an exception to this general rule, however, it is well to leave openings, here and there, for views from the house into the remotest parts of your grounds; and let these vistas terminate on some pleasing object, as an arbor, a shady dell, or favorite tree with a rustic seat beneath it. But of tree-planting, I will say nothing further, except to quote the advice of the old Laird of Dumbiedike to his son: "Jock, when ye hae naething else to do, ye may be aye sticking in a tree; it will be growing, Jock, when ye're sleeping. My father tauld me sae forty years sin', but I naer faud time to mind him."

Of shrubs and flowering plants, the larger kinds may be used as fringes to your belts and groups of trees, some may be arranged in masses by themselves, and others separately by the side of your roads and walks. If you plant in beds by the side of your walks — and this is a very good arrangement — set the largest in the rear, and the smallest next to the walk. And if you set them alternately, running in a zig-zag line, they will all be in immediate view from the walks. To twine about the pillars of your piazza, or to clamber over your porch and windows, plant such vines as the Chinese Wistaria, Virginia creeper, Trumpet honeysuckle, and perhaps some of the climbing roses.

Let me say in conclusion, undertake nothing but what you can do thoroughly. Do not plant with a view to please every body; but let your work be an expression of yourself. Make your place in keeping with your purse and condition. If you have wealth to use in the gratification of your taste, do not make a display of it. Remember, too, that a great establishment is a great care, and that the proprietor is very apt to become a slave to it. Be content with a tasteful simplicity. Let your dwelling place be marked with what painters call "repose." Make it the abode of comfort and refined enjoyment, a place which will always afford you cheerful occupation, but not oppress you with care. Of this mode of moral life, it may be said, as of Cleopatra's beauty.

> "Age cannot wither, custom cannot stale
> Its infinite variety."

Proceeding upon such a plan as this, you will certainly find in your work from year to year, some of the purest enjoyment under the sun. And if, as it is said, 'there are thirty thousand species of plants known, and at least thirty millions of varied combinations of landscape scenery possible,' you will not soon lack for employment.

[The foregoing article is perhaps the most complete and satisfactory treatise for its length, on Landscape Gardening that we have ever read. Those who study it will possess the true outlines of the science. We trust our able correspondent will frequently use his pen for the *Horticulturist*.—ED.]

* Of a certain country-seat in England, Loudon says: "Nothing can be more judiciously disposed than the trees in this ground. * * * * Immediately in front of the house the surface contains very fine trees, but at a short distance these commence, at first thinly scattered and sparingly grouped, and then increased in number till the groups unite in masses, and the masses are lost in one grand valley of wood."

REMARKS ON COLD GRAPERIES.

BY A. HUIDEKOPER, MEADVILLE, PA.

ED. HORTICULTURIST:—In the December number of the *Horticulturist* for '54 I gave some notes on a vinery without fire heat, erected for family use, only 20 by 22 feet in size, in which the vines were brought into bearing the second year; promising the then editor to give also a report for the next season. The crop of the present year was 410 bunches, all of which ripened well, except the Muscat of Alexandria; a part of which matured, but would, I think, have had a higher flavor if the season had been warmer. The vines were taken up with the beginning of April—blossomed on the 24th of May, and we commenced cutting the fruit on the 15th of August, and are still enjoying it, (October 16.)

About 150 bunches were cut out in June, at the period of thinning, and fully one half of the berries removed from the stems. If I were to lay down three comprehensive rules for a new beginner, I would say, give your grapes plenty of scissoring. While the bleak winds of spring prevail, a cold grapery requires to be kept rather dry, but with the advance of summer, heat and moisture are the two great agents of development, and 85° and 90° degrees of heat are none too much. The removal of half, and where they have set very thickly, even more of the berries, makes much handsomer fruit, and ensures earlier maturity. It may be a matter of taste in which I should differ from others, but I much prefer three pounds of grapes to be grown on three different bunches, than to have that weight on one stem. As a general rule, I think the fruit will be larger, the bloom better, and the colour deeper on the small than on the larger bunches, and for practical convenience one pound bunches are large enough.

With regard to mildew, I think if sulphur be liberally sprinkled on the floor of the grapery *as soon as the fruit has set*, and repeated two or three times in the season, we would not be troubled with it one year in twenty. The error in using this remedy, I take it, has been to wait until the mildew exhibits itself. Sprinkled on the floor, the fumes of the sulphur reach every part of the grapery and the application is much nicer than if made to the vines and fruit. I mention an accident that occurred to me in the use of sulphur as a warning to others. The first half of June was exceedingly unpropitious. Almost perpetual rains, with intervening light frosts until the 13th. Fearing mildew might show itself before the solar heat would act upon the sulphur, an iron plate was warmed on which to sprinkle it, a portion of the plate had unintentionally got heated too much, and the sulphur took fire, and in a few moments the foliage, wherever reached by the gas, was totally destroyed; so that some of the vines were reduced to naked canes. In a few weeks the leaves were reproduced, but the growth of the fruit was meantime interrupted; had it not

been for this, the Pitmaston and Sweetwater grapes would probably have been fit to cut by the 1st, instead of the 15th of August.

My vines look well, and, if agreeable, I hope to report again next year as to the effects of early cropping. The only suggestions in addition to the above, which occur to me to make to a beginner, are, that a vine for its proper development should have at least six feet of room to itself; that a vine introduced into a border some years later than the others will grow much slower than one planted cotemporaneously, the first vines preoccupying the ground with their roots. And lastly, in planting a small grapery, it is better to select varieties which mature their fruit at nearly the same season, as a different condition of the grapery is required for growing fruit, and for that which is ripe.

THUNDER AND LIGHTNING.—In Arago's Meteorological Essays, lately published, many latitudes are given where the phenomenon of thunder and lightning are unknown; those among the inhabitants of Lima in Peru for instance, who have never travelled, can form from their own experience no idea of thunder, and they are equally unacquainted with lightning, for even noiseless and sheet lightnings never appear in the atmosphere of lower Peru, often moist, but never showing true clouds. Arago sums up his inquiry by saying that the most brilliant and extensive flashes of lightning which appear to embrace the whole extent of the visible horizon, have not a *duration* equal to the thousandth part of a second of time!

FAMILY ATTACHMENT.—Two little African children, who are connected by a strong ligament below the spine, are exhibited in London; they are called the African sisters, and excite the interest of the Siamese twins. They are very lively, and laugh, chatter and tumble about with as much enjoyment as other children.

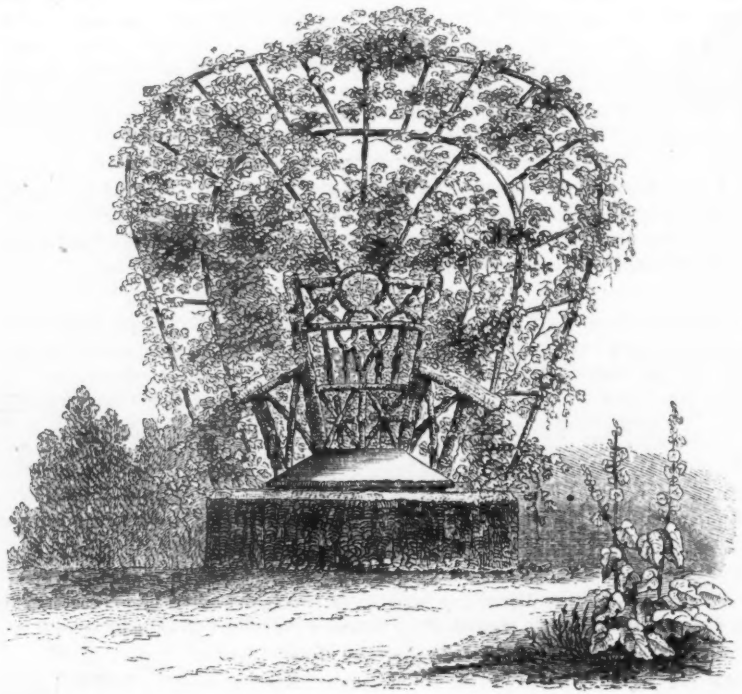
GRAPES in GEORGIA.—That able periodical, the Southern Cultivator, published at Athens, Georgia, has a very encouraging article on the prospects of grape culture and wine making in that decidedly progressive State. Mr. Axt has introduced vineyards and hopes to make 2500 gallons of wine per acre, worth at least one dollar the gallon. The vine, it says, fairly revels in that climate, adapting itself to almost every variety of soil. A correspondent of the same paper says: "I feel confident that you and I will live to drink plenty of Georgia wine, of better quality than Ohio can produce," to which the editor replies, "and may the time come speedily." Mr. Axt and others have, however, experienced difficulties with the rot. Mr. A. had a silver pitcher voted to him for his labors at the Atalanta fair. This calculation of 2500 gallons is *much* too great.

ROSES.—According to Agassiz, no fossils of the rose have ever yet been discovered by geologists. He thinks the creation of the plant is coeval with that of man.

SQUASH.—A Squash was on view at Chicago the other day, weighing 192½ lbs!

AN IVY COVERED RURAL SEAT.

CIANT or Irish Ivy has frequently been recommended in this periodical for ornamental purposes, as well as a beautiful green plant which is perfectly adapted to warm rooms, where it grows with great rapidity, soon covering a trellise to form a screen for a window. In the present cut is represented its adaptation for a rural seat or bower. The box is covered with bark, partly filled with chunks of charcoal, leaf mould, and loam; the more charcoal placed inside, the lighter will be the whole structure, which may be placed on wheels, and taken to any part of the garden required; or under a large piazza or front portico, for a waiting seat. The supports are composed, in our own instance, of basket willow interwoven by a basket maker,



and the seat is supported back and front by setting it on the box. We have brought this plant for one or two winters into the hall, where it forms a beautiful growing evergreen ornament for the eye, no less than for an "expression of purpose." In the heat of a furnace ivy requires a considerable amount of water, which should be used at the temperature of the room.

In the cut the artist has scarcely preserved the proper perspective; it should convey the idea, more perfectly, of a top spreading over the sitter in the form of the top of a willow cradle, but much larger and higher. The box should be placed on rollers or wheels.

PLANTS FOR HANGING VASES.

NO. II.—THE GREENHOUSE.

BY THOMAS MEEHAN, GERMANTOWN.

In the September number of the *Horticulturist*, I offered its readers an article on hanging vases, in so far as they were capable of affording a floral interest to the comforts and pleasures our verandahs, porches, and piazzas afford us. The list of plants I gave comprised only those which not merely grow well in the shade such situations suppose, but which would do better than these in more exposed places. The interest which has been taken in the subject induces me to extend my notice, so as to embrace a list of plants that would do well in the *sun light*, so that an additional charm might be given to the culture of greenhouse and conservatory plants.

It is rather a matter of surprise that more attention has not been given to this subject by some of our cultivators, as many plants are in their most natural state when drooping or reclining, and some, as is well known, will not flower freely unless allowed a little wilfulness in their mode of growth.

It must not be denied that the culture of plants, in baskets for exposed situations, is attended with some little difficulty in our climate on account of the heat of our summers, and the aridity of our atmosphere, which render it necessary to be constantly watering them or constantly shading them, the first of which soon renders a soil sour and unfit for the growth of sun-loving plants, while if we resort to shading to save watering, a large growth of leaves with but few flowers is the result.

Fortunately for us we have a small list of plants, which, while they luxuriate under our burning sun, do not desire a large supply of moisture to keep them in health, and at the same time are more at home when allowed to trail, or hang from baskets or vases, than "chained to the stake" as we so generally see them, and where like tight-booted recruits at a drill, it seems so very uncomfortable to "stand at ease."

Foremost in value perhaps, is:—

1. *The Petunia.*—There are many improved varieties, and the list is increasing; cuttings of desirable plants should be taken off in the fall or through the winter so as to be well rooted by spring. They will commence to bloom soon after being planted in the vase and continued till the following spring. New plants should be raised every year.

2. *Neurembergia gracilis.*—The well-known border plant, with pale lilac or lead colored blossoms; an old vine of great beauty, but which I have not seen for years, *N. intermedia*, would probably do very well this may also.

3. *Mannettia glabra.*—With shining green leaves, and scarlet tubular flowers, blooming from August to November, but dying back by spring. The same is to be said of the next—

4. *Boussingaultia baselloides.*—The "Maderia vine," with sub-suculent leaves, and sweet white flowers in densely clustered racemes, does not require much water.

5. *Torenia Asiatica.*—Does pretty well this way; but does not like exposure to a very dry atmosphere, yet desires a pretty high degree of heat. Young plants must be raised every year, the old ones usually dying out.

6. *Mesembryanthemum crystallinum.*—The common ice plant, and indeed the whole of this family, make admirable basket plants, as do also any of the trailing kinds of *Cacti*, *Sedum*, or *Crassula*, as they take little water, require little pot-room, and seem to flower the more freely for a full exposure to the sun and air.

7. *Busselia juncea.*—Flowering at various times throughout the season, and is very ornamental.

8. *Pentas carnea.*—Though not exactly a drooping or pendulous plant, if grown in pretty rich soil, and supplied with an abundance of water, will hang over the sides of the pot, and form a pretty object when not suspended too high; as also will

9. *Heliotropium Peruvianum*, with its varieties.

10. *Verbenas* do very well in winter and spring; but become very shabby by the summer season. The old "Robinson's Defiance" is one of the best scarlets for the purpose, and "America" amongst the whites.

11. *Ipomea ficifolia.*—Has to be kept rather warm to get it to live over the winter, but thrives very well in a greenhouse when once started, and makes a beautiful object when in bloom, by the abundance of its rosy, purple flowers.

12. *Solanum jasminoides.*—The jessamine-leaved nightshade will do well. It will succeed even in partial shade, and though its flowers are something like potato-blossoms, it is nevertheless a general favorite.

13. *Cobea Scandens.*—Though somewhat of a straggling habit of growth, by good management might be made to be something of a respectable basket plant.

14. *Maurandia Barclayana.*—Blue, and the white and pink varieties, cannot perhaps be excelled in their capabilities for aiding in ornaments of this kind. They are best when raised from cuttings or seeds every season.

15. *Lophospermum Hendersoni.*—A spotted variety of the *scandens*, but with much better foliage, makes a fine object suspended from a vase or *vaseret.*

16. *Jasminum revolutum.*—In rich, sandy soil will trail and hang over the sides of whatever it may be suspended in, forming one of the handsomest of yellow flowering ornaments we can have in the spring of the year.

17. *Mahernia odorata.*—Another very handsome yellow early flowering plant of the easiest culture.

18. *Passiflora cerulea.*—A rather loose and straggling plant, but by a little pruning and training, would make a very pretty object.

19. *Tradescantia zebrina.*—An admirable plant for this mode of culture. Its flowers are very diminutive, but the beauty of the foliage makes up for this deficiency. It thrives well in the shade.

20. *Lycopodium Cæsium Arboreum.*—Though not a flowering plant, always commands attention, by the steel-blue tinge of its foliage. They will only thrive in a warm, moist, and shady situation.

21. *Tropæum tricolorum,* crimson, and *T. azureum,* blue, with care in cultivation, would make good subjects for suspending. They require a sandy, vegetable soil, with little water, till very strongly in growth; and after they are done flowering, must be put away in a dry place, preserved from moisture till the growing season returns.

22. *Hoya carnosa.*—The "Wax plant," so called from its thick, wax-like leaves. It is of very easy culture, but must not have a very low temperature in winter.

In cultivating plants in suspended baskets or vases, the fact must be constantly borne in mind that they will require more water than the same plants grown under ordinary circumstances. Every precaution, therefore, must be taken to render the soil porous, by employing it of a coarse, turfy texture; and the baskets should, besides, be well drained. The frequency of the waterings would otherwise render the soil sour, which is the great obstacle in the way of growing basket-plants.

THE GARDEN.—No land pays a higher rate of interest than the humble, despised garden.—The quantity of vegetables which it can be made to produce, almost exceeds belief; and farmers may well open their eyes, when told that under good management two acres of a garden will be more profitable than twenty acres of a farm, as it is usually conducted. In the vicinity of cities and large towns, the raising of vegetables for market is conducted on a large scale, and is very lucrative, and even the poor man can, by his own labors at odd times secure an abundance of food for his family, which is as good as money saved, as well as earned.

VERBENA IN YELLOW FEVER.—The use of an infusion of verbena, both as a drink and as an injection, has been tried in the South — especially in Cuba — for yellow fever and black vomit, with great success.

WHEN AND HOW TO PLANT TREES.

BY WM. SAUNDERS, LANDSCAPE GARDENER, GERMANTOWN, PHILADELPHIA.

(*Continued from Page* 498.)

WHEN planting is anticipated, the formation of a good compost heap should meet immediate attention. Sides of old fences, where grass and weeds have remained for years undisturbed, or old meadow bottoms, afford a soil of the best description as a basis for such a purpose. Mixed with a fourth-part of fresh manure, and frequently turned over to assist decomposition, they form a suitable compost for any description of tree or shrub. When it is a desideratum to hasten the decay of such material, it may be watered with a solution of potash. One pound of potash will be enough for a cubic yard of soil. It should be dissolved and used in as much water as will thoroughly wet the whole mass. This will not only render it fit for use in a few weeks, but also enhances its value, potash being largely appropriated by plants, independent of its decomposing agency in the soil.

The pleasure and satisfaction derived from the contemplation of trees in a cultivated state, depends upon the evidences of health and vigor which they exhibit. A well-formed, free-growing tree is at all times an object of beauty, while a stunted, moss-covered one is as certain to suggest ideas of impoverished soil, or mismanagement on the part of the cultivator. The nature and condition of the soil is therefore an all-important consideration; with regard to the latter quality, freedom from superfluous water and aeration should be secured. Although perhaps not absolutely necessary in all cases, yet it may safely be laid down as a rule that all soils are benefited by judicious draining. It has been said that draining was really injurious in a climate where droughts are of frequent occurrence, or in soils of a sandy or gravelly character. Experience, however, proves the reverse: it has been shown, time and again, that sandy soils are more productive and less liable to suffer from drouth when properly aerated by underground drains, as they increase the porosity of the soil and consequently enhance its capabilities for absorbing moisture and holding water in suspension within its pores.

Clayey soils are equally improved by this method of underground ventilation; an adhesive subsoil is formed into a compact surface immediately below the cultivated stratum, which retards the downward extension of roots, and prevents the admission of the various gases useful for building up the vegetable structure. Air is indispensable to the growth of plants, and must have free access to the roots and their surrounding soil. The soil must be sufficiently porous to part readily with water, other-

wise air is in a great degree excluded. A further advantage is gained from a perfect system of drainage and increased porosity in the soil, in the ammonia and carbonic acid conveyed into it by every shower. Rain-water absorbs these gases in its passage through the atmosphere, and the soil has the property of retaining them as the water percolates through it. Air is also a principal agent in decomposition. There are many unproductive soils that really contain all the elements of fertility, but in the absence of decomposition they are useless for the purposes of vegetable growth. In the absence of air and water, substances may remain unchanged, but under their combined action the hardest rock must change and decay. When we reflect that about nine-tenths of the whole bulk of plants is made up of gaseous matters, we find sufficient reason for the luxuriance of plants in aerated soils, and the necessity of securing them these conditions.

The great secret of getting trees into rapid and vigorous growth lies in the prepation of the soil. Pits ought to be dug out not less than six feet across and from eighteen inches to two feet in depth. The surface soil should be thrown out and all bad and inferior subsoil removed and replaced by an equal portion of prepared compost. The difference in five years growth between trees thus provided and those planted in pits half that size, is quite surprising. Carelessness in planting indicates itself for many years, in the numerous dead branches, short, stunted-looking growth, moss-covered bark, and frequently by the death of the plant, while those planted in thoroughly prepared ground, if removed with ordinary care, scarcely receive a check, or show symptoms of having been disturbed.

It is a common error, and a very pardonable one, for those who are anxious to produce immediate effect, to plant the largest sized trees that can be procured. It is quite possible to remove trees of very great age and size successfully. We have well-authenticated instances of the removal of trees 300 years of age, and I have seen a large plantation successfully transplanted after 30 years growth; but to ensure success in these extreme cases involves an expense which few would be willing to incur. Neither is it practicable to bestow the same care and attention on trees that are purchased at a distant nursery and have to undergo the perils and casualties of transportation. There must be a certain proportionate balance maintained between the roots and branches, and when the roots of large trees are severely shortened, the branches must also be reduced to a corresponding degree. The question of size is therefore dispensed with. So well is this fact understood in Scotland that the nurserymen there, annually commit to the flames thousands of pine, Norway spruce, larch, &c., from three to five feet in height, which have out-grown a saleable size, and for which there is no demand. All plants are removed with least check when young, and a uniform, vigorous and satisfactory plantation is most readily obtained by early removal.

(*To be continued.*)

THERE IS PROGRESS.

BY T. C. PETERS.

WAS very much pleased with an article in the September number on the "Progress of Horticulture," and the question "Is there any?"

If you will allow a little time and space to a plain country farmer he would be pleased to tell you some of his experience.

While a boy, he was fond of good fruits, and whenever he found any or heard from others of that which was an improved variety, he used to get scions, and set them in the old, or rather then a young orchard. Last year he picked upwards of twenty bushels of Rhode Island Greenings from a tree which he budded as a matter of idle pastime when a young man.

In 1830 he had read some of Major Adlum's communications on the native grape, and sent to him for cuttings. But not living much at home for some years after they were put out, and having no practical knowledge of cultivation, no fruit came of them except ridicule. But after having seen vineyards and vine-clad hills, he succeeded in raising a good supply of the Isabella, and they are as common to his family as apples. A few years, only some ten past, he became a permanent fixture, and then set his heart upon having some choice pears. For the last three years he has had a very good supply, and this year he gathers several bushels, while neighbors have none, for they said when he set out his trees, that it took them so long to bear he would never live to enjoy their fruit. He has had some luscious morsels from his Bartletts, and he has now some fine specimens of the Vergalieu, Stevens' Genessee, Maria Louise, Bonne de Jersey, Seckel, and some dozen other choice sorts, and he finds among them daily enough that have ripened to make him pity those persons who had no faith and planted no trees.

His cherry trees planted the same year have borne for some time, so that he is now well supplied with choice fruit of his own growing, and he can calculate upon having it for the whole year, for his apples keep until the small fruits of spring come in, and there is no cessation of the blessings of a good Providence, during all the seasons.

He is sometimes vexed when his careless neighbors steal his fruit, but takes heart in the hope that the taste may breed a desire to have it of their own growing. He takes great pains to distribute grape cuttings and scions of choice fruits, and strawberry plants, but the demand is not as large as one would suppose. Still there *is* a marked progress in Horticulture. The *Horticulturist* is silently and rapidly expand-

ing the public taste upon this subject, and may its readers multiply an hundred fold in Western New York.

[We had our artist to prepare the annexed representation of one of our own Duchess D'Angoulême Pear trees, as it appeared on the 18th of October, just previous to its being stripped, and after several pears had been taken from it, leaving thirty-two, all of a good average size.

This tree, and several others exhibiting this season equally prolific bearing, was purchased only four years ago from Ellwanger and Barry, of Rochester, New York, and was then one year old from the graft. On three trees we counted one hundred fine pears. Equal results may be recorded from trees of similar age of several kinds, though as a "show tree" the Duchess was the most remarkable. After such results, instead of, as formerly, being obliged to wait a life-time to see your trees in full fruit, there is no longer need to ask, "Is there any progress?" The fruit of this tree, costing less than fifty cents, could have been sold for five dollars readily.—Ed.]

A CHAPTER ON PEARS.

BY O. T. HOBBS, CRAWFORD CO., PA.

My bearing trees are nearly all dwarf, and contrary to the experience given by some correspondents of the Horticulturist in a former volume, I find them productive to a fault. I have about a hundred varieties, nineteen of which have borne the present season, and many others which were loaded with blossoms dropped their fruit prematurely in consequence of inclement weather.

My trees vary from three to five years of age from the buds, and I am so well pleased with them that I intend to plant several thousand, mostly of winter varieties for the city markets. I plant from eight to ten feet apart, and cultivate with one horse, plow and harrow.

Our new soils abound in potash, and are well adapted to pear culture without the addition of manures, (lime excepted,) until by bearing they tend to exhaust the soil. There is little danger, however of making the ground too rich, but extra tillage is of more importance in new rich soils than abundance of manures.

Those who plant on wet clay or green sward, and leave them to take care of themselves, will be sure to find fault with "Dwarf Pear trees." The quince, the currant, and the rose, will pay beautifully for extra treatment, and will not well abide any other and give satisfaction.

The season here has been one of the most unfavorable for the perfect developement and perfection of fruits that has been known for many years. We have in this a lesson worthy of the attention of both tree and fruit cultivators. A fruit which has proved itself superior to the climatic severity of 1855, may be planted extensively without fear of failure.

My little experience with pears for the season, is as follows:—

Madelain, insipid and acid.

Dearborn's Seedling, flavorless.

Bartlett, excellent above suspicion.

Summer Frank Real, acid and insipid.

Brown Goubault, sweet, juicy and good, and should entirely supercede Frank Reals.

Seckel, quite indifferent.

Belle Lucrative, flavorless and insipid.

Long Green, very good.

Henry IV., high flavored and good.

Duchess d' Orleans, high flavored but astringent.

Bilboa Golden Buerre, good but not high flavored.

Buffam, excellent.

Duchess d' Angouleme, good, but lacks flavor.

White Doyenne, high flavored, acid, and astringent.

Buerre Diel, good but not high flavored.

Swan's Orange, a magnificent pear but a little too acid.

Bezè d' Montigny, musky, perfumed and good.

Buerre Oswego, extremely acid and astringent.

Buerre d' Anjou, a few specimens have ripened, and are of fair quality.

All the above have shown more or less characteristics of good fruits, and under favorable circumstances are all worthy of attentian, but the favored few which have withstood the severities of the season should have a conspicuous rank among their fellows. First in the rank is Bartlett and Buffam; next Buerre Goubalt, Long Green, and Henry IV., also Duchess d' Angouleme, White Doyenne, Bezè d' Montigny, Swan's Oswego, and Buerre Diel.

As time rolls on I hope to be able to furnish the cultivators of fruits with reliable information through the *Horticulturist*, and the good citizens of the Quaker city with delicious fruits.

[Let your remittance be as soon as possible. Our citizens, as a general rule, scarcely know what good pears are; a hungry population, increasing at a monstrous rate, will make you a fine market. You do not enumerate *the Lawrence;* first, we call it, in excellence, and easy of transport. Cuttings are at your service.—ED.]

PROLIFIC CHARACTER OF FRUIT TREES IN CALIFORNIA AND THE WEST.

WE hear it often remarked that the fruit trees of this State are remarkable for tendencies to an over-abundant crop, and that it holds good in every description of fruit. We know this to be so, not only in one season, or in one locality, but in all California and Oregon there is a universal disposition in fruit trees to overbear, and unless care is taken by growers to relieve the tree of a part of the fruit, the tree will be seriously injured.

By a little observation any one can see, as the fruit is maturing, a portion of it will grow more rapidly and of fairer form, leaving others of an inferior size and form. Remove all the latter from the tree at once, and thus increase still larger the best fruit. This rule should apply to all fruits; to grapes, more particularly of the finest varieties; not only remove inferior bunches from the vines, but small berries from the bunch.

In speaking of the prolific nature of fruit trees in California, in our examination of the fruit gardens in various sections this year, we have seen as follows, and very recently: Bartlett pears nearly ripe, and the trees blossoming again—not one, two, or three trees only, but nearly all in the orchard; this at Briggs' orchard on the Yuba, near Marysville. In the vineyards of Gov. Boggs, in Napa Valley, clusters of grapes nearly ripe and the vines in full blossom again; this on nearly every vine. At the large peach orchard of Messrs. Thompson, Suscul Valley, the trees loaded with luscious ripe fruit, and a second crop of fruit coming on; and this, too, on numerous trees. Pear trees also, at Ranch, have a second crop.

Those who feel any interest in these remarkable instances of the wonderful fecundity of fruit trees and the desire to investigate the causes will do well to examine all these places. They can all be seen and the proprietors will be pleased to show them.

We can cite innumerale instances of peach trees where *every peach on the tree was double* and several cases where the peaches were *triplets.* Apples and pears are found double, and melons in handsomely formed pairs, twin grown. We know, however, that these facts are becoming so common, among those who are observant, that they are of every day occurrence, but the great mass of the people should know the abundance that is soon to be poured out upon us.

The Strawberry has already proved a *perpetual* fruit. The Fig gives us *two crops* and ere long will yield *three;* and we hesitate not to say that by and by, at every State Fair, there will be exhibited many kinds of fruit of a *second crop,* and several also of *perpetual* species, never before known of that habit. We shall also have on exhibition the second crops of our cereal grains, for however much we now have to boast of in this land of plenty, "the half has not been told."—*California Farmer.*

Iowa Monster Productions.—We at the East shall have to give up. Immediatly on hearing the above from California, we took up the Iowa Farmer, and read as follows:

"The productions of the West are rather of a wonder to those who have been accustomed to see large vegetables or fine fruits only as the result of the highest cultivation. We take from western papers some notices of monster vegetables. At Eddyville a tomato was raised 16 inches in circumference and weighing two pounds; at Oskaloosa, a watermelon weighing 46 pounds; at Ottumwa, a radish weighing 5¼ pounds; at Burlington, also, a beet 26¼ inches in circumference. We ourselves saw upon the tables at the late meeting of the Fruit Growers' Association, a peach, raised near there, 12 inches in circumference, also a pear, weighing 1½ pounds, another, Beurre Diel, raised by J. F. Tallant of Burlington, weighing 1¼ pounds, and last though not least a pear raised by John R. Tull of Pontoosue, Ills., weighing 1¾ pounds.

PROPAGATION OF FISH.

INFORMATION of the highest importance on the artificial propagation of fish was laid before the late meeting of the British Association. Experiments with salmon, made at Perth, Scotland, have been extremely successful. Three hundred boxes were laid down in twenty-five parallel rows, each box partly filled with clean gravel and pebbles. On the 23d of December, 1853, 300,000 ova were deposited in the boxes. On the 31st of March, 1854, the first ovum was observed to be hatched, and in April and May the greater portion had come to life, and were at large in the boxes; in June they were admitted into the pond, their average size being about an inch and a half in length. From their admission to the pond the fry were fed daily with boiled liver, rubbed small by the hand. By spring of the present year they had increased in size to the average of three and four inches in length. On the 2d of May a meeting of the Committee was held at the pond, to consider the expediency of detaining the fry for another year or allowing them to depart, but it was thought they had not assumed the migratory dress till the 19th, when the sluice communicating with the river Tay was opened, and every facility for egress afforded. Contrary to expectation, none of the fry manifested any inclination to leave the pond until the 24th of May, when the larger and more mature of the smelts, after having held themselves detached from the others for several days, went off in a body. A series of similar emigrations took place until full half the fry had left the pond, and descended the sluice to the Tay. It has long been a subject of controversy whether the fry of the salmon assume the migratory dress in the second or third year of their existence. So favorable an opportunity of deciding the question as that afforded by this experiment, was not to be overlooked.

In order to test the matter in the fairest possible way, it was resolved to mark a portion of the smelts in such a manner that they might easily be detected when returning as grilse. A temporary tank, into which the fish must necessarily descend, was constructed at the junction of the sluice with the Tay; and as the shoals successively left the pond, about one in every hundred was marked by the abscission of the second dorsal fin. A greater number were marked on the 29th of May than on any other day, in all about 1200 or 1300. The result has proved highly satisfactory and curious. Within two months of their liberation, twenty-two of the young fish so marked when in the state of smelts on their way to the sea, have been, on their returning migration up the river, recaptured and carefully examined; the conclusions arrived at are most gratifying, and proved what has heretofore appeared almost incredible, the rapid growth of the young fish during their short sojourn in the salt water. Those taken first weighed 5 to 5½ lb, then increasing progressively to 7 and 8 lb, whilst the one captured on the 31st of July weighed no less than 9½ lb. In all these fish the wound caused by marking was covered with a skin, and in some a coating of scales had formed over the part.

The experiment has afforded satisfactory proof that a portion at least of the fry of the salmon assume the migratory dress and descend to the sea shortly after the close of the first year of their existence; and what is far more important in a practical point of view, it has also demonstrated the practicability of rearing salmon of marketable value within twenty months of the deposition of the ova.

There can be no doubt that the quantity of salmon (as well as other fish,) may be enormously increased by the artificial breeding process, and we regard the experiments of great importance. At Cleveland, Ohio, success has attended the first experiments of Dr. Garlick and his coadjutor, who may do a vast deal for their fellow men by fully populating our western lakes. In the salmon regions, east and west, the subject deserves attention. And there is little doubt that in neighboring rivers, where salmon are now unknown, they might be thus successfully introduced. How much more useful would it be if some of our sportsmen would take up the subject, instead of devoting their hearts, bodies, and time to the poor enjoyment of shooting useful birds!

FAMILIAR GOSSIP ABOUT THE NEW JERSEY AGRICULTURAL SOCIETY—THE BROOKLYN HORTICULTURAL SOCIETY—THE HUNT BOTANICAL GARDEN, &c.

BY WILLIAM CHORLTON.

It is not often that your humble servant strays away from home; partly from the required multiplicity of action around his own precincts, and in some measure owing to the same enthusiasm that makes your late-mentioned "Happy Pomologist" give such attention to his favorites. However, a little social intercourse with our "kith and kin" endears us more closely, afterwards, to our chosen pursuit, and I send you a few observations on two exhibitions visited in the course of my hasty peregrinations. And first, of

The New Jersey State Agricultural Society.—It is not my purpose, neither does it come within the limits of the *Horticulturist*, to descant upon the merits of cattle and such kind, but he may judge somewhat correctly of the quality of his more immediate interests—fruits, vegetables and flowers; to this part these remarks are confined. With regard to the first department, there was a somewhat extensive display collectively, and a fair but not over mediocre quality. Apples, pears, and watermelons were well represented, (one collection of pears from Mr. Reid, of Elizabethtown, which were not for competition contained 100 varieties,) but as to the rest there was certainly a deficiency, particularly in the variety of peaches. The same may be said of grapes, both native and foreign; only one collection of the latter being shown, and these, which, under the circumstances of being grown in the open

air, were very creditable. Where was the produce of the many glass structures which have been erected of late years?

It may be thought that the more delicate culture of flowers does not come within the scope of an agricultural society, and consequently a fair display was not to be expected, but giving every allowance that can be justly made, so long as a list of prizes was offered, we may say that this portion was poor in the extreme.

A word about general arrangement, and we have done. It should be understood by the committees of these exhibitions that, if the various classes be placed distinct, yet approximate to each other according to the schedule, and the different competitors' produce in each division put side by side, the decision of the judges would be more correctly arrived at, and after disputes prevented; besides which, it would facilitate their work; would enable the public to see at a glance the relative quality, and intending planters to select more surely the best varieties. This want of system was much felt at this meeting; it is not mentioned here, however, for the purpose of censure, but as a gentle hint to all societies, many of which commit the same error. Altogether the exhibition seemed to go off very well, and gave much gratification to the numerous visitors.

There was also exhibited a hand-glass by Flood and Rimmington, of Brooklyn, that deserves mention, as it will supply a want long felt by propagators in particular, and gardeners generally. It is of the old-fashioned, lead-jointed construction, but with a pillar in the upper centre, which forms a support to the moveable top, and which can be lifted and made firm to any height, or lowered to the will of the operator, merely by the thumb and fore-finger; such a contrivance has long been wanted, and the wonder is how it is possible that we who "know something" have plodded along so far and none of us have seen the *simplicity* sooner.

The Brooklyn Horticultural Society held one of its more than usually successful meetings on the 19th and 20th September, and I have no hesitation in stating that there was here collected into one room the most select, well-grown and choice collections of plants that it has been my good fortune to see in America. Louis Menand's lot showed an advance beyond his former reputation; amongst his numerous varieties was Gongora maculata, Zygopetalum mackayii, Erica vulgaris, (the true heather bell), cerinthoides, mammosa, blanda, and mollis, Bilbergia thyrsoides, Aphelandra Leopoldii, many rare Ferns, and their allies the Lycopodiums. Mr. Rauch, of Brooklyn, had also a most splendid, extensive, and choice lot, in which was the pretty Caladium pictum; Mr. Collopy, gardener to Mr. Prentice, had Cissus discolor trained as a pillar seven feet high, and an Achimenes grandiflora from Mr. Edward Decker, gardener to J. Q. Jones, Esq., was three feet across; Mr. Poynter showed a collection of Gloxinias that were really superb in quality, amongst which were Rosamond, Torenia, Klugii, Hackeyana, coelestinum, mignon. Our native and much neglected side-saddle flower (Sarracennia purpurea,) also looked no mean representative. Goff & Day showed a collection of the plants of commerce which were interesting if not beautiful, but I would advise such contributors not again to make the common green curled endive into the true chicory, and recollect that if the throng passes by

satisfied with such, that the scrutinizing eye of the botanist can detect the imposition. Cut flowers, both arranged and loose, were fine, particularly the former. The fruit collectively was extensive and very excellent in quality. The pears, peaches, and plums, extra; Messrs. Ellwanger and Barry displayed a fine lot of the latter. One Flemish beauty pear from Alexander Gordon, gardener to Mr. Hoyt, measured 10½ inches in circumference. Native grapes were good, but the exotics only so-so, considering the very liberal encouragement given by the society; some of the best growers, however, have not the privilege of "coming out," excepting occasionally, or the case would have been different. There was a fine bunch of a white grape, named *Tyrolleur*, shown by Mr. Morreau, which was evidently an exotic, and said to be hardy; if so, it will be a great acquisition, but I very much doubt, from the appearance, if it had not been under a glass case of some kind.

A word about the *Hunt Botanical Garden.*—This intended establishment was first mooted amongst the members of this society, aided by the energetic determination of its worthy president, A. J. S. Degraw, Esq., and has met with such favorable support from Mr. Hunt, Mr. Langley and others, that they have now at their disposal $100,000, and eighteen acres of land gratis. The chosen committee for carrying out the object have offered a premium of $250 for the best design for laying out the grounds, and at the above meeting there were exhibited two well-drawn plans, one from Mr. Augustus Hepp, and the other from Mr. Graef. An opinion upon such matters ought to be supported by practical acquaintance with the details, a thorough knowledge of the subject, and disinterestedness in the concern or the competitors; taking this view of it I do not hesitate to speak out plainly. The plans are both pretty pictures, well executed upon paper, but each wanting in generalities. Mr. Graef's is little more than a diversified promenade on a monstrous principle, while Mr. Hepp's, to a great extent, is misapplied utility. We want for such an establishment, utility, and promenade, and grandeur combined, the whole to be easily instructive, so that the student of science, or the lover of nature may each receive enjoyment, yet at the same time to be partly self-supporting, and afford pleasant walks, secluded *nooks*, and a spacious area for display; such is not collected into either of the designs; both gentlemen might do well to take the hint.

In conclusion, Mr. Editor, allow me to say that the untiring perseverance of the worthy president and his co-workers has been the means of instilling energy into the surrounding districts, and if other parts of the country are not up and doing they will be left in the back-ground.

Potatoes.—We saw, on Saturday, says the *Newport News*, 50 potatoes which weighed 50½ pounds; they were raised on the farm of J. Prescott Hall, Esq., on some low swampy land which has but recently been reclaimed. We saw them weighed and consequently know that the statement is correct; this exceeds anything that we have heard of lately in the potato line.

NEW PLANTS.

BUDDLEIA CRISPA. *Crisped-leaved Buddlia.*—This beautiful plant is from the Himalayas, at an elevation of 5500 to 7500 feet above the level of the sea; it bears the winters in England with only the protection of a wall, and flowers from the beginning of February until May, scenting the atmosphere around with its fragrance.

Description.—A shrub, twelve or fourteen feet high. Branches opposite, obtusely tetragonal, the younger ones densely covered with tawny or ferruginous down. Leaves on wooly petioles, ovate or oblong, the lower ones cordate at the base, upper ones cuneate, thick, tomentose, densely so beneath; the margins toothed and crisped, rarely entire, except in the upper leaves. Flowers arranged in capitula, or in dense whorls, constituting spikes or racemes, and forming panicles. Corolla, salver-shaped, lilac, with a white eye. Stamens four, inserted below the middle, and quite included; filaments short, anthers short, oblong. Pistil quite included. Ovary ovate, downy, except at the very base. Style very short; stigma clubbed, bifid.

UNCOMMON GROWTH.—There is hanging in our office, the forked bough of an apple tree, each part of which measures only 22 inches in length, on which there are *one hundred and forty seven apples!* thicker upon the wood than human ingenuity could possibly affix. They are of an average diameter of two and a half inches, and the weight of the branch is 13 lbs. It was cut from a tree on the premises of Mr. John Haley in the western part of the city, and is called the "Anti-Know-Nothing Apple," from its great yield.—*New Haven Register.*

VARIETIES.

MICROSCOPIC PHOTOGRAPHS.—Some microscopic photographs exhibited at Manchester, Eng., the other day, excited much admiration. One, of the size of a pin's head, when magnified several hundred times, was seen to contain a group of seven portraits of members of the artist's family, the likenesses being admirably distinct. Another microscopic photograph, of still less size, represented a mural tablet, erected to the memory of William Sturgeon, the electrician, by his Manchester friends, in Kirkby Lonsdale church. This little tablet covered only 1-900th part of a superficial inch, and contained 680 letters, every one of which could be distinctly seen by the aid of the microscope.

CAUTION TO BUILDERS.—Mr. Branwood, according to the London Quarterly Review, has stated his belief that, by long exposure to heat, not much exceeding that of boiling water, 215 degrees, timber is brought into such a condition, that it will ignite without a light. The time during which the process of desiccation is going on, until it ends in spontaneous combustion, is, he thinks, from eight to ten years. Pipes for heating buildings by steam should, therefore, be clear of all wood work, and rest on metal brackets only.

BUTTERCUPS POISONOUS.—*The Journal de Chimie Medicale* relates a case of poisoning from eating the common buttercup. Some children were amusing themselves by making crowns of this flower, when one of them was tempted to eat some of the flowers. Violent pain, stimulating colic, and all the symptoms of poisoning supervened, but fortunately the life of the child was saved. The root of the buttercup is of a very acrid nature, and if chewed will blister the mouth.

BEES.—A question about "stupifying bees with nitre," may be perhaps satisfied by the following advice:—If you will use chloroform they will find it perfect in its action and preferable to the fungus. The way to proceed is to put two teaspoonfuls of chloroform into a cup, to soak a bit of rag in it, and to put the rag into the box or hive, of course closing the entrance; the bees will almost immediately begin to drop, and in less than 10 minutes every bee will be stupified. They will come to themselves in about half an hour.

TOWN AND COUNTRY.—We wish that any hints we can offer might induce our stalwart young men who are struggling for a livelihood in towns and cities, to go forth into the country, throw off the livery of coventional life, put on the frock, and with uprolled sleeves, seize, themselves, the plough, and "greatly independent" live. The prolific bosom of mother earth has enough for all her children who will seek their supplies from her abundancies, for giving doth not impoverish her; and scattering her blessings but increases her means.

STRIKING ROSE CUTTINGS.—I have succeeded well in striking cuttings of the rose this season by disobeying the usual routine, thus: The cuttings were placed in pots as usually practiced, put out into the full blaze of a summer sun and watered six times every day. Cuttings similarly planted and placed in the shade failed almost entirely. Here is a fact for others to try.

C. J. W.

Celery.—It is a good plan to blanch a portion of your celery in the following manner. Take hollow tiles, such as are used for drains, or two halves tied together if you can procure them more easily, and pull off the small leaves of the celery plants; gather the rest together in your hand and put them through the hollow of the tiles. The plants make rapid progress, and after a time put some additional length in, thrusting a stick inside, both into the ground, to prevent the wind from blowing them down, and in 25 or 30 days, the celery will be blanched. Celery may be thus procured three feet long and ten inches in circumference. It would be an improvement to have the tiles so constructed as to admit of a collar on the under and upper tile, so as to fit on each other and exclude the air at their junction. The benefit that would result, would pay to have a set of tiles to use from year to year. Will some manufacturer produce some and let us see a sample? It is not too late for the present season.

Profits of fruit culture in Oregon.—The following statement of P. W. Gillett of Astoria, shows that the inhabitants of Oregon have not been idle in fruit culture, and are likely to reap a fair reward for their labors:—

Fruit-growing, the most pleasant, as well as the most profitable branch of agriculture, is receiving increased attention with us. Indeed, no expense nor pains has been spared in introducing and testing varieties. Oregon has now a splendid assortment of fruit with a climate congenial to its growth. The summers are too cool, however, at the mouth of the Columbia, to produce peaches of a fine flavor; but the interior of the Teritory has a climate adapted to the perfect development of the finest peaches, pears, and grapes.

Green apples are worth from $8 to $10 per bushel, and ready sale at that. At this rate one acre of land in apple-trees, allowing 14 bushels to the tree, which is a low estimate for trees of mature age, and forty trees to the acre, gives the enormous sum of $4,480 per acre. This is a matter of fact, and not speculation- It is true, our orchards, being young, yield but from one to eight or ten bushels to the tree; but it is the opinion of some of our wisest men that good winter apples will command, in the San Francisco market, as high a price for the next thirty years.

Books on our Table.

Price Current of August. Van Geert, Horticulturist, Ghent, Belgium; autumn of 1855 and spring of 1856.

Credentials of E. W. Bull, of Concord, Mass., the originator of the Concord Grape. From J. D. Ingersoll, Hion, Herk. Co., New York.

The testimony to the value of this grape, is certainly very full, and from well-known horticulturists. The grape may be pronounced "large, handsome and excellent."

Affleck's Southern Rural Almanac and Plantation and Garden Calendar for 1856.—Washington, Mississippi.—This neat little almanac is southern throughout, and as such should be in the hands of all southern cultivators, to whom it will impart much information.

Catalogue of Fruit and Ornamental Trees, Evergreens, Flowering Shrubs, Plants, Roses, &c., cultivated and for sale at the Hopewell nurseries, near Fredericksburg, Va. Henry R. Robey, Proprietor.

Descriptive Catalogue of Strawberries.—W. R. Prince & Co., Flushing, N. Y. 1855, 1856.

Atkins' Automaton, or Self-Raking Reaper and Mower.—This is an advertisement of the "lion" machine at the Illinois State Fair at Chicago. It attracted more attention than any other implement on the ground, and is certainly a most ingenious and useful article. Twelve hundred, we were informed by the proprietor, J. S. Wright, were built for the harvest of 1855.

The Railroads, History and Commerce of Chicago. 1855.—We indebted for this pamphlet to William Bross, Esq., one of the prominent and energetic citizens of that wonderful city, Chicago. The whole story of this "new world" is astonishing, and beyond the dreams of eastern romance.

Review.

Japanese Botany; being a fac-simile of a Japanese Book, with introductory notes and translations. Philadelphia: Published by J. B. Lippincott & Co. $1.25.

When the Japan expedition was first proposed, no class of our fellow citiizens felt a greater interest in its success, apart from national considerations, than did we as horticulturists. Japan had been so long something of a sealed book, that our curiosity was excited at the prospect of a peep at the inside. By the prying of some enterprising Dutch botanists we had already been delighted with a Paulownia, some fine Clematises Hydrangeas, and many other acquisitions; we hoped that our friend Perry, and others of his command, would he able to minister still to our desires.

Nor have we been altogether disappointed. Many opportunities did not occur to them, but the few that did were eagerly made available, and every thing that could throw any light on the Horticulture or Botany of Japan, was carefully preserved and brought to us.

The present book we owe to the energy of Dr. Wilson of the expedition; and while it is an interesting contribution to the flora of Japan, it is at the same time a genuine literary curiosity. The work is small quarto, and even including the binding, exactly an imitation of the original copy. Forty papers are devoted to the drawings, which we are surprised to find much superior as artistic productions to what we were led to believe the Japanese capable of. Amongst the figures are several quite new to us, especially two Caryophyllaceous plants, allied to the well known Chinese Pink, (of which also a drawing is given,) and which appears to be very beautiful. Our old friends *Onis Chinensis*, and *Silium speciosum*, with other stranger forms allied to them, we readily recognize. One plate is occupied with a bunch of Chrysanthemums, representing pretty well such specimens as were in cultivation with us twenty years ago. Could we send our Japan brethren a collection of their favorite flowers, as modern French florists have improved them, they would scarcely see in them the same species.

The work has other interesting features besides these we have specified. The editor has translated the characters, and placed the interpretations side by side with the inscriptions, thus affording an insight into the nature and construction of their language.

We have no doubt that all interested in Japanese curiosities, especially floral and botanical ones, will agree with us in wishing the publishers a remunerative sale for their spirit in getting up this treat for us.

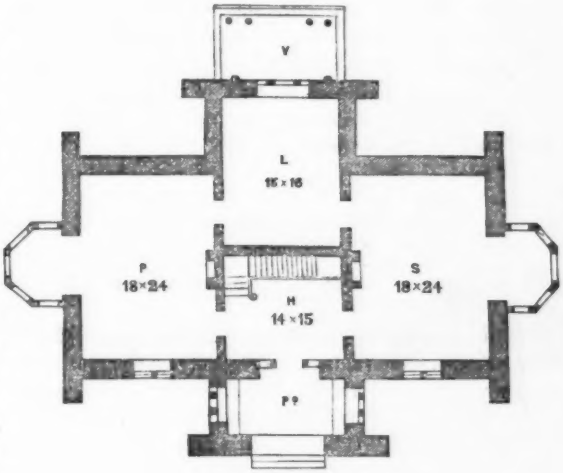
Those Japanese are odd fellows at a dodge. We have *opened* a port or two and thought ourselves in contact with them at last; but they value our coin too low to make trade an object, and moreover declare they have nothing to sell! Of course no *trade* can result, and we must be content with their seeds and flowers. *Artful dodgers* indeed.

DESIGN FOR A COTTAGE.*

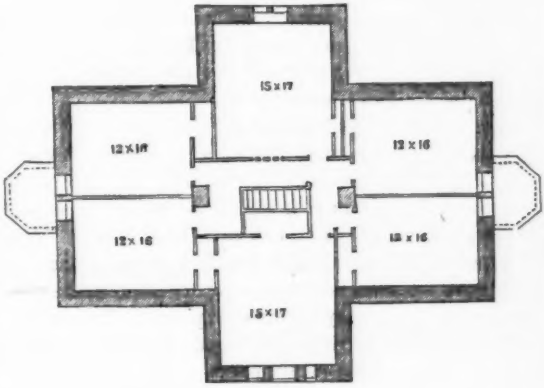
BY M. B. BENTON, LEEDSVILLE, N. Y.

THIS design is simple in its plan and of symmetrical proportions. It is in the Gothic style, and may be built of stone or of brick. If of brick, the buttresses should be capped with stone, and the cornice of wood painted to resemble the cappings. The entrance is brough an open porch, with a broad arch in front, and smaller, unglazed openings at the sides. The parlor and sitting-room are both spacious apartments, 18×24 feet, and each containing a large bay-window. If these windows were filled with choice house-plants, they would form very attractive features of the dwelling. The library is lighted by a large window at the end, which opens to the floor, affording egress to the veranda.

The basement arrangements would vary greatly with the situation, and



PRINCIPAL FLOOR.



CHAMBER FLOOR.

* See Frontispiece.

taste or convenience of the builder. Supposing the ground to descend somewhat from the front side, the lower rooms might be lighted wholly from the back. The dining-room might be placed under the sitting-room, and the kitchen under the library, and the room beneath the parlor might be partitioned for cellar, pantry, bathing-room, closets, &c. A servant's bed-room might be finished off under the porch.

The chamber arrangements embrace six large rooms, each with a closet. The passage is lighted by a ground-glass window exactly opposite the one in the back chamber. The windows of the side rooms open to the floor, upon the balconies over the bay-windows. The height of the walls of the principal floor is twelve feet, and those of the chambers six or eight feet under the roof.

We give no estimate of the cost of construction, as it would vary greatly in different sections of the country, owing to the cheapness or convenience of material, as well as with the style of finish.

THE VINEGAR PLANT.

For some time past, the vinegar plant has been used abroad as a substitute for cider vinegar, to advantage. Frequent applications have been made to us to know what it is, and whether introduced here. We cannot discover that it has been. It is exhibited in a living state in the Kew Garden museum, and is called *Mother of Vinegar*. It floats upon a liquid mixture of sugar and water, and is a minute fungus, allied to the *mucors*, or *moulds*, Pencillium glaucum, of which the mycelium, or spawn, forms a tough leathery web. A bit of this thrown into the above liquid rapidly increases, induces acetous fermentation, and changes the sugar and water into good vinegar. The yeast plant, or "mother of yeast"—a substance not so easily preserved—is also considered a Pencillium, and to its action is due the formation of yeast.

It is a well-known fact, that much of the vinegar which is sold in the shops, is either malt vinegar reduced with water, and strengthened with sulphuric acid, or acetic acid, also diluted, neither of which is very acceptable or wholesome. Under these circumstances, it will be a comfort to know that one can make his own vinegar as well as yeast, and know what is in it. Take one gallon of water, half a pound of sugar, half a pound of molasses, and boil them together for twenty minutes; when cool, add a quarter of an ounce of German yeast; put the whole into a jar, and lay the vinegar plant on the surface of the liquor. Cover the jar with paper, keeping it in a warm place, and it will produce very good and wholesome vinegar in about six weeks.

As it appears to be popular and useful in England, we have sent out to endeavor to procure it.

EDITOR'S TABLE.

A GREENHOUSE FOR EVERYBODY.—Strange as it seems, while every writer has been informing the public how to make a pit for wintering plants, no one has mentioned a simple contrivance that is within the reach of everybody who lives in a house with a cellar. If the cellar door is opened and an old or new sash is placed in the aperture, a winter pit is made without more ado. Close all the windows of the cellar, and open the cellar door on clear days, closing it on cold nights. If the door faces the south, it will be better than north. In this "pit," lemon and orange-trees, fig-trees, and, in short, rose-bushes, and almost every plant will be safely protected, and often produce flowers and ripen their fruit. Remember this paragraph.

THE JAPAN BEAN.—Favorable reports regarding this bean reach us from several quarters. In New Jersey it produces well, growing on a woody shrub, about two feet in height, and producing from seventy to eighty white beans, perfectly round, and of the character of a pea, which it was first called. They are so prolific that it is supposed an acre of land may produce eighty bushels.

A WASP CATCHER.—Some nice gardeners, especially ladies, will find, in the accompanying sketch, an admirable means of catching wasps and other insects, troublesome to graperies and greenhouses, and even bees where numerous in a neighborhood, in house windows. It is copied from the second volume of *Mackintosh's Book of the Garden*, just published in London.

SEEDLING RHUBARB.—The *Prairie Farmer* contains an account of a new seedling rhubarb, raised in the garden of Mr. Cohorn, of Kenosha, Wisconsin, where he cultivates it on ground that was lately a marsh. One root produced fifty-five stalks, of which the largest was two feet in length from root to leaf, and would girt at least eight inches. Mr. C. cuts from four to five hundred pounds a day, and receives $4 per hundred, in various western markets.

NUTMEGS IN CALIFORNIA.—The *Calaveras Chronicle* speaks confidently of having seen a branch of a nutmeg-tree, with fruit on it, grown in California, about fifteen miles from Mokelumne Flume. Will the *California Farmer* confirm this?

PERMANENT IMPRESSIONS OF FLOWERS ON GLASS.—Mr. Robert Smith, of Blackford, England, has contrived a very ingenious and effective plan of ornamenting glass, by producing thereon permanent impressions of flowers, leaves of plants, and other objects. In this process of ornamentation, the operator goes to work by first preparing the objects to be reproduced on the glass surface with a solution of gum. The details of the figure are thus attached to the

glass, in the positions required by the device. The entire face of the glass thus treated, is then covered over with a composition of oil, tallow, and wax, in a warm state. When this composition coat becomes solid, the objects are removed from the glass, which is now submitted to the action of fluorine gas; or liquid fluorine may be poured upon the glass; or further, the plate may be treated with fluor spar and sulphuric acid. This is the ordinary treatment involved in glass-etching—the peculiarity of Mr. Smith's process being the mode in which the design or the line of action of the acid is produced. The fluorine corrodes the glass only at the parts where the flowers or pattern objects have been placed, and hence the forms of the objects, however elaborate or delicate, are faithfully reproduced from the models supplied by nature herself. The ornamental designs produced in this way are extremely beautiful; the figuring may be colored as fancy suggests, by the common process of "burning-in" in a furnace.

Downing-Hill Nursery.—The catalogue of this nursery, at Atlanta, Georgia, is received, and appears to be worthy of the attention of Southern cultivators, from the proprietor having selected his fruit trees for a Southern climate. We should be glad to hear more frequently of Southern nurseries and planting.

The California Fair.—California exhibits, at the present moment, the most marked difference between the Anglo-Saxon and the Spanish race and habits. A fair on a grand scale has been held at Sacramento, and the *California Farmer* discourses of fruit in a style which must silence some boastful exhibitors among us. On one sprig of a pear-tree was a cluster of twelve large pears; on another, a stem five feet long, were no less than thirty magnificent peaches, some of which measured seven inches in circumference. Double musk and water-melons, monster pumpkins, 135 pounds in weight; a Newtown pippin, 15½ inches by 14½ inches; lemon oranges 19 inches; seedling peaches a foot in circumference; Hovey's strawberries, four inches in circumference; stalks of corn twenty feet in length, and so on, were some of their trophies. It speaks, too, of parks six miles square, presenting the appearance of a magnificent English domain, the handiwork principally of nature. What a variety of climate our people have to enjoy; cultivation embraces every soil and latitude. When shall we receive specimens of California productions over a good railroad?

The Grape Disease.—The devastation of this disease has been more widely spread in Europe, the past season, than is generally credited; indeed, the disease may be called sporadic, and its fatality may be judged of when we state that the owner of a Portuguese Quinta, who used to draw from one of his vineyards twenty to seventy-five pipes of wine every year, drew but three the past season, and that these were of very bad quality. Various methods of treatment have been suggested, tried, and abandoned as useless; the only course which gives promise of any success, being that of restraining vegetation by severe pruning. A very interesting new book has been published in London, lately, entitled *Gatherings from the Wine Lands.* It says, among other clever things, to show there is nothing new under the sun, that the method of imbibing that vinous preparation called "sherry cobbler," was practised by an Asiatic people, with respect to their ale. Xenophon came upon a people who made the Greeks as weary of laughing as they were of marching and fighting, by drinking their barley wine through straws.

The disease of the grape is said to have destroyed fifty per cent. of the Cincinnati crop, in 1855.

Bartlett pears have been selling in New York market, at wholesale, at $9 per barrel. One cultivator of this delicious fruit realized at the rate of $9,200 per acre, from his orchard; he

plants 104 standard and 436 dwarf pears on each acre. From one nursery near Rochester, N. Y., fruit trees to the value of $15,000 have already be sent West this fall.

A Machine for Peeling Willows.—A machine for peeling basket willows has been invented by G. J. Colby, of Jonesville, Vt. Its operation is very simple, the willows being passed through between two or three sets of India rubber rollers, one set of which has a vibrating motion which rubs the bark off very effectually; the others mainly separating the willows from the loose bark. The rollers being made of India rubber, there is no possible chance for the willows to be injured, and it will adapt itself to all sizes, so that from twenty to thirty rods can be passing through at the same time. With one horse, and with two men to attend it, it will peel from one to two tons per day, while to do the same amount of work by hand it would require thirty or forty men and boys. This is one of the greatest labor-saving machines of the age, and if farmers only understood it they would soon plant willows enough, so that we should not be obliged to send to Europe for them as we now do.

Cotton from India.—Threats are constantly thrown out by Europeans, that India will supersede America in the growth of cotton. Funds have been abundantly wasted in the attempt; no mistake can be greater. India is not, as many imagine, a conquered country to be ruled as easily as an English colony. Asiatic princes have given way before British soldiers, but the governed, at heart, remain what they ever were. The object of these people being to keep their subjects in a state of abject dependence on themselves, it is of the highest importance to their interests that no foreign government should be allowed to elevate their condition. The Brahmins discouraged the cultivation of some cotton seeds from New Orleans, distributed at Mysore, as it would cause the disappearance of the native plant, and therefore "the evil eye" would be upon all their efforts. To insure the truth of this prophecy, men in disguises were sent into the fields at night, and were seen uprooting the plants. From this it may be inferred that it is not the British government, and least of all an Indian government, that can produce the necessary changes. Directors and capitalists may patronize, men of science may demonstrate, and culturists may execute, but all in vain, so long as things remain as they now are—under Hindoo influence and foreign rule.

The Pulse Machine.—Professor Bierordt, of Frankfort, has invented a machine to record the beating of the human pulse. The arm is placed in a kind of cradle, which keeps it steady; a lever rests by one end on the artery, and at every beat a pencil, on the opposite end, marks a cylinder of paper. If the pulse be regular, a regular zigzag line is produced; if irregular, the line is full of breaks and jerks.

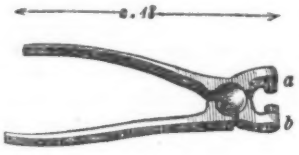
Trees, &c., for the Banks of Railroads.—A gentleman who has passed much time in America, communicates to the *London Gardener's Chronicle* some remarks on the *maclura aurantiaca* as a hedge plant, and recommends it strongly for the defence of railroads, and as useful to keep up the banks by means of its powerful roots. He says that in the Southern States the wood is preferred in ship-building to that of the live-oak (*quercus virens*). In addition, the wood of the *maclura* is used in various articles of cabinet work, such as tables, bureaus, bedsteads, &c., and the chips serve as dyestuff, affording a yellow color which can be extracted by ebullition. His remarks on its use for railroads are these: "It recommends itself particularly to railroad companies as a means of defence of the roads, and particularly for preserving the slope of the banks; for its long, fibrous roots, extending horizontally, are a powerful barrier to the slides occasioned by rains, or other atmospheric agents."

The *Revue Horticole*, Paris, takes up the subject and adds: "The maclura is not the only wild plant which may succeed along our iron roads, either to strengthen their slopes, or to use to advantage on the vacant and often extensive plots of ground near them. Without neglecting the American tree, we might think of more than one of our indigenous species which, while they preserve the soil, are capable of being made profitable. Now that an excellent paper can be manufactured from the fibres of several plants which were long considered useless, would it not be well, for instance, to attempt the cultivation of the genistre, the spartium, or some of the yuccas, along the arid slopes of the railroads in the South of France?"

Here are two valuable suggestions which we place before our readers for their consideration.

Pincer to Mark Trees or Bushes.—The French have several little ways of verification, which we have not yet put in practice. If you purchase a looking-glass in Paris, the vender hands you a candle, and asks you to write your autograph on the face; notwithstanding this verification, we have never been quite sure that a purchase in that line was not somehow (possibly by a transfer of the candle-grease to another glass) *unverified*. But let that pass. The adjoining little cut represents an instrument for the verification of your tree purchases; where suspicion exists, it will be a very handy article to bring out of a waistcoat pocket.

The little pincer allows you to place a marked lead above a knot, by a string or cord, by which you verify your tree when it gets home. It is a common pincer, having at its extremities two points, upon which numbers or letters at *a* and *b* are engraved; pinched slightly into the knot or bark, your string sustains a lead with a similar indentation, enabling you to be perfectly satisfied that you have obtained what you purchased. It is the invention of M. Arnheiter, and engraved for a late number of the *Revue Horticole*.



Scuppernong Grape.—This seems to be the grape for the South, and for making wine, which is in greater demand than any other made there from native grapes. John H. Weller, Brinckleyville, N. C., makes and sells this article, at from one to four dollars a gallon.

Vermin.—Raspail, one of the best French chemists, states that a solution of aloes, washed over the trunks and branches of trees with a brush, will destroy all vermin on plants and trees. Soft soap is also strongly recommended to prevent the borer making his attacks, as well as to give the tree a green and healthy appearance.

Guinea Fowls *vs.* Rats.—A correspondent of the *Prairie Farmer*, who was much annoyed by rats, tried shooting, poisoning, and everything he could think of; but they defied the whole *cat*-egory. He then heard that they would not remain where Guinea fowls were kept, and procured several, and now says that for over two years he has neither seen nor heard a rat about the premises.

A Large Apple.—We are indebted to Mrs. R. S. McElory, of Pickens District, for a present of the largest apple that has, as yet, come under our observation. It is fourteen inches in circumference, and weighs one pound and a quarter, and only a fair sample of her own raising. It is called the Buff apple. Taking them all in all, we are sure they were the soundest and finest looking apples we ever saw.—*Greenville (S. C.) Enterprise.*

New Oil Plant.—A correspondent in the *Pacific* communicates for the *Horticulturist* the following information:—

"In the province of Piura, Peru, grows wild a bush or plant, said to resemble the Palma Christi. It is known commonly by the name Piñon. A countryman of ours, Alfred Duvall, Esq., has produced from the seeds of this plant an oil, which for lubricating, as well as for illuminating purposes, is fully equal to, if not superior to the best spermaceti oil, at least, such is his opinion, after sufficient experiment. He is about erecting the necessary machinery, and making arrangements to collect the seeds, in ample quantity, for the purpose of producing the oil in sufficient amount to supply the market, at a price very much less than that of any other oil of equal quality."

"*Cotton.*—The cotton grown in the province of Piura, is said to be, next after our Sea Island, equal to the best gathered in the United States. I am assured that each plant, on an average, yields at each crop four times as much as our plants, and affords two crops every year. This plant does not require to be renewed oftener than once in five or six years. The quantity cultivated is comparatively small, from two to three thousand bales, owing, probably, to the want of facilities of transportation to a port for shipment, and also, want of population. One of their political writers says: 'Peru is taking a siesta;' when she wakes up, she may do something towards developing her agricultural resources."

The New Potato.—We have devoted several pages in the present, and last number, to the complete account of the *Dioscorea batatus*, respecting which short paragraphs have conveyed, from time to time, more or less information. The first article is credited to the London *Mark Lane Express*, which is the exponent of subjects on food; the present number contains an account of its cultivation taken from the new Patent Office Report, and will be found full and interesting. The trials yet made of this esculent in this country, are not yet conclusive as to its importance, but there seems to be every probability of its adaptation to our climate and soil; if so, it will become of the utmost importance, and not improbably the prairie land of the West will become its home.

Vicar of Winkfield.—We are indebted to P. R. Freas, Esq., for specimens of this pear, called by the French *Monsieur le Curé*. They are very fine, but to our taste, not equal to a well ripened *Duchesse*, or a fine *Lawrence* in season about the same time.

Apples from our neighbor Keyser, of several fine kinds, show emphatically that Pennsylvania is not *utterly worn out*, as some will have it to be.

Large Seckel Pear.—While all the other States of the Union are recording their triumphs in fruit culture, the Key Stone must not be forgotten. We have to record the growth of a Seckel Pear, which is probably unprecedented for its size. It was received by post, enveloped in cotton, and grew in the garden of Thaddeus Banks, Esq., in Hollidaysburg, Pennsylvania; its length was nine and a half inches, and circumference eight and three-quarter inches. Mr. John Penn Jones will accept our thanks for this remarkable specimen, "which was grown on a three years old graft, *on an apple.*"

The Railroads.—We shall endeavor to give an early insertion to "Horticola's" article on "the Railroads in a social point of view." As at present managed, they are a despotism, on a reduced scale, as bad as some of the thousand and one despotic institutions in the old countries

of Europe. We are glad that somebody will aid us in taking the part of the humbled public against the Lords of the rails.

United States Agricultural Society.—The exhibition at Boston, successful as it was, will be fully reported in those periodicals which especially devote themselves to its topics; except incidentally, it scarcely falls to our lot to do more than give it a favorable greeting and to record its advent. Well did Colonel Wilder, its great promoter, remark:—

"A prominent object has been to awaken in the public mind a just appreciation of their labors and a stronger love for agriculture and rural life. How delightful the occasion! How salutary its influences! Here the rough animosities of party strife, the asperities of political dissensions and the bitterness of sectional jealousy are merged and lost in the love of a common pursuit, and a common country; and in proportion as we act in concert and harmony for the advancement of the great industrial arts of life, we cement and strengthen the bonds of our glorious Union. (Enthusiastic cheering.) Here we witness an illustration of the power of voluntary associations, the grand characteristic of our age, the great engine which propels the car of modern enterprise."

Again, he said: "We, of New England, cannot boast of a luxuriant soil like that of the prairies and valleys of the West, nor of a genial clime like that of the sunny South, but industry constrains our reluctant soil to yield its increase; and though prominent among our exports are granite and ice, yet these are no indications of the hardness of our hearts, nor of the coldness of our affections. No! *No!!* We extend to you our friendly greetings, and our most cordial salutations." (Cheers.)

The Boston *Journal* says: "This truly national affair has been successful beyond the most sanguine hopes of those under whose auspices it was arranged. The display of stock has embraced some of the best cattle, sheep, and swine, ever exhibited in this part of the country, and we doubt whether a finer collection of horses was ever brought together."

Our own city was well represented, and if eloquence had been entitled to a premium, our brother editor, Morton McMichael, might have carried off the first.

Sixty thousand persons were on the ground at one time, and the cost of the liberal arrangements were all met by the pay for entrance. This is very encouraging for the future; on one day the gates had to be closed, so great was the throng. Why not have the next exhibition in Philadelphia? We trust it may be so.

Notices of Books. *Flora's Dictionary.*—Messrs. Lucas Brothers, of Baltimore, have issued a new edition of Flora's Dictionary, by Mrs. E. W. Wirt, of Virginia, with 500 wood engravings, and 56 groups, colored from nature; the title and presentation plate are printed in colors, making a capital Christmas or New Year's book.

The Illustrated Annual of Rural Affairs and Cultivator's Almanac for 1856, by J. J. Thomas, has been published by Luther Tucker & Son, of Albany, N. Y., in a neat and handsome cloth-bound duodecimo. It is a very useful manual for the country.

The Western Agriculturist is the name of a new weekly paper, published at Pittsburg, Pa., by David Ramaley. It promises to be a valuable addition to the agricultural periodicals now so useful and numerous.

Downing's Familiar Notes and Letters.—In the ensuing volume of the *Horticulturist* will be published a short series of familiar characteristic notes and letters from the late A. J. Downing to the present editor, written off hand, in the full tide of life and hope. We feel confident they will interest all who peruse them, and revive in many hearts feelings of admiration for the hand that is now cold!

ANSWER TO CORRESPONDENTS. (*P. A.*) *Bleeding of Vines.*—The vine often bleeds excessively when pruned in an improper season, or when accidentally wounded; Mr. Knight, in the *Horticultural Transactions*, recommends, from practice, "four parts of scraped cheese, to be added to one part of calcined oyster-shells, or other pure calcareous earth, and this composition to be pressed strongly into the pores of the wood; the sap will instantly cease to flow, so that the largest branch may, at any season, be taken off with safety."

The Smoke-house Apple has been twice described in the *Horticulturist*, which will account to "B." for the non-appearance of his favor.

(*W.*).—A good liquid manure for watering plants will be found to be, mixing 12 gallons of water with four pounds of the best guano, and allowing it to stand for twenty-four hours. This will suit flowers in pots. The same guano will serve three times, each time being covered with twelve gallons of water.

(*S., Illinois*).—The "red" and "white Dutch" are considered, by many, superior currants for the table, to the "cherry," "grape," "Victoria," &c.

(*Curculio*).—This vile insect *has* attacked the cherry in some places.

(*T. S.*) *The Box Tree.*—In planting the tree box, use a half peck of chalk, broken up, and freely mixed with the earth. It increases the rapidity of growth and the beauty of the foliage.

(*G. H. T.*)—Your "Black Apple" is the Red Canada.

A BEAUTIFUL CONCEIT.—Some author—we remember not who—informs us how we became indebted for the red rose. They were all of a pure and spotless white when in Eden they first spread out their leaves to the morning sunlight of creation. Eve, as she gazed upon the tintless gem, could not suppress her admiration of its beauty, but stooped down and imprinted a warm kiss on its snowy bosom. The rose stole the scarlet tinge from her velvet lip, and yet wears it.

WHEAT CULTIVATION.—Prof. Mapes, in a recent address at the Indiana State Fair, stated that the wheat crops of Ohio had fallen from 35 to 15 bushels per acre. This statement is denied to be true by the editor of the Ohio *Farmer*. He asserts that the average amount of wheat raised per acre in Ohio is now greater than ever it was, and he gives statistics to prove his assertion.

SUNDRY MATTERS.—We have space left only to notice with commendation the new *Patent Office Report;* the *Transactions of the New York State Agricultural Society*, in one large volume; and the *Year Book of Agriculture*, by David M. Wells, issued in this city by Childs and Peterson. *Report of the Pennsylvania Horticultural Society* in our next.

The Country Gentleman fills a niche in periodical literature of great importance. The respective publishers of the above journal and the *Horticulturist* have made arrangements to issue the two for the ensuing year for three dollars. This will meet the wants of a large mass of subscribers, who will thus obtain at a "club" price two works that enjoy an extensive popularity. —*See Advertisement.*

CLOSE OF THE VOLUME.

We presume that there are few who look over the nature of our Table of Contents, its list of illustrations, and the varied nature of the horticultural information collected during the year, but will agree that this is a very cheap book. Such indeed it is, and we are safe in saying that one of its size and containing its engravings, could not be afforded by a bookseller for more than twice the price.

Arrangements for the ensuing year are now all completed; the editor and publisher enter upon the new volume in January with their machinery and tools perfected to a state much beyond what they were on the journal being suddenly transferred to Philadelphia. That event found the editor without a single exchange periodical to consult or copy, and it has only been within a few weeks that his stores of European works have fully arrived. The publisher, too, was without prepared illustrations; yet, notwithstanding these disadvantages, the *Horticulturist* has been more punctually issued than formerly; and if reliance may be placed on public and private notice, and upon subscriptions, it has been received with a favor undiminished, nay, increased. For the future, it will be printed under the superintendence of the best typographer in Philadelphia.

Under these circumstances we shall continue for 1856, we trust, to multiply the attractions of the work, and certainly, if personal zeal in the cause of horticulture can achieve success, or personal devotion of time can command public approbation, they shall not be wanting; with confidence, therefore, we ask for a continuance of patronage, and invite our numerous readers to a renewal of their subscriptions—reminding them of the necessity of their being *in advance*, the mailing being discontinued with the time for which it is paid.

The January Number will contain, "A short chapter on Gardeners and Experimental Gardens," by the editor. "Ornamental Trees," by Lewis F. Allen, of Black Rock, New York. "The Cultivation of the Pear Tree," by Dr. Ward, of Newark, New Jersey. "The Seed Business of the West," by Wm. Stoms, Cincinnati, Ohio. "Railroads in a Social Point of View," by Horticola. "Cultivation of the Raspberry," by Daniel Hughes, Haverstraw, New York. "Effects of Moonlight," by Professor Lindley. "Grafting the Cactus Tribe," with a plate, &c. &c. The frontispiece illustrations will be "A New Rhododendron," from North Carolina, and "A Design for a Country House."

ROBERT PEARSALL SMITH,
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